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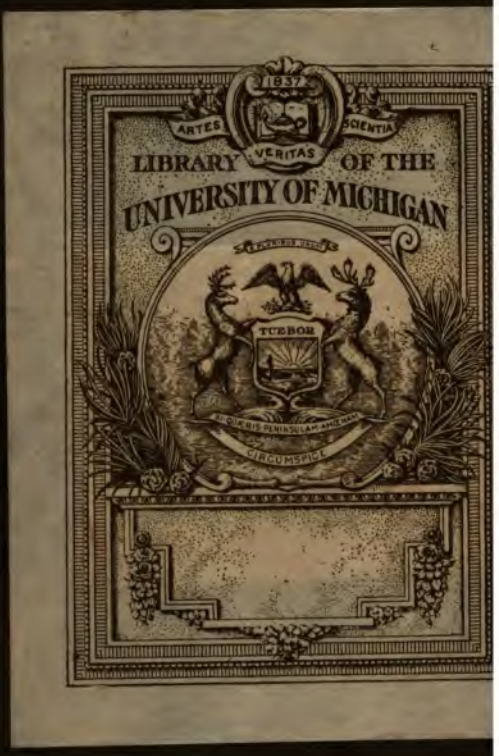
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THE CLEMATIS.

Clematis.

1. rubella. 2. marmorata.

J.L Macfarlane del et lith.

THE CLEMATIS

AS A GARDEN FLOWER:

BEING

DESCRIPTIONS OF THE HARDY SPECIES AND VARIETIES OF CLEMATIS OR VIRGIN'S BOWER, WITH SELECT AND CLASSIFIED LISTS, DIRECTIONS FOR CULTIVATION, AND SUGGESTIONS AS TO THE PURPOSES FOR WHICH THEY ARE ADAPTED IN

MODERN GARDENING.

BY

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AND

GEORGE JACKMAN, F.R.H.S.,

OF THE WOKING NURSERY, SURREY.

LONDON:

JOHN MURRAY, ALBEMARLE STREET.

1872.

01-2820EM

TO

H.R.H. THE PRINCESS MARY,

DUCHESS OF TECK,

THIS VOLUME,

TREATING ON ONE OF HER FAVOURITE FLOWERS, IS,

BY PERMISSION,

RESPECTFULLY DEDICATED,

AS

A SLIGHT ACKNOWLEDGMENT OF THE CONSIDERATE SUPPORT WHICH

HER ROYAL HIGHNESS

HAS CONSTANTLY GIVEN TO WHATEVER MIGHT TEND TO

THE IMPROVEMENT OF THE PUBLIC TASTE IN

HORTICULTURE.

345340

PREFACE.

THE increasing popularity of the *Clematis* as a hardy free-flowering climber, and the great improvement which has been effected within the last few years, in regard to the quality of its flowers, and the variety both of character and colour which it affords, have induced the authors to prepare the treatise, which they now submit to the judgment of that portion of the public which takes interest in gardens and in flowers. They have done this with the special intention of assisting the amateur gardener in making selections from amongst the numerous varieties now to be met with, and in cultivating them to the greatest advantage. The descriptive notes of the varieties, which in almost all cases have been made after a personal inspection of the plants, afford, it is believed, a faithful statement of their respective characters and merits. The varieties which have not been seen, and which are described from figures or other materials, are few in number, and occur chiefly amongst the earlier Continental sorts, or amongst the quite recent English or Continental varieties which have only as yet flowered in the hands of the producers.

The cultural instructions which are given are based upon their own personal experience, and may, therefore, be relied on. According to their observations,

the pruning of the plants is one of the most important elements of the successful management of the *Clematis;* and it further seems to them to be only reasonable to make provision against the excessive drain upon the vital forces of the plants, resulting from the profuse and continuous production of flowers, by providing them with an abundant supply of food. In such comparatively light soil as that of the Woking Nursery, this becomes all the more important.

In making their selections of varieties they have again been guided mainly by their own observations and experience. All the garden varieties of *Clematis* are handsome plants, and few of them would really disappoint those who grew them; but amongst so many some must necessarily have the preference over others, either as to habit or constitution, or in regard to the profuse development of flowers, and hence, they have endeavoured to recommend those varieties of the different seasons and colours, which possess the larger share of these good qualities. Further knowledge and experience are, however, needed in the case of some of the later introductions.

August, 1872.

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THE CLEMATIS

AS

A GARDEN FLOWER.

INTRODUCTION.

CLEMATIS, a word which comes from the Greek κλημα (*klema*), a vine-branch, is the name given by botanists to a well-known genus of ornamental plants often called Virgin's Bower* in English gardens, and refers to their vine-like habit, the majority of the species being remarkably free-growing climbers with woody stems and branches. The species are both numerous, and widely distributed. A considerable number of them are hardy in this country, while some require the shelter of a greenhouse, and others that of a plant stove. The former or hardy group, to which these pages are devoted, is by far the most important from a gardening point of view, and includes some of the most gorgeous and perpetual-blooming of our hardy ornamental flowering shrubs.

* Loudon observes that as the first Clematis brought to England (*C. Viticella*) was introduced in 1569, during the reign of Elizabeth, the name of Virgin's Bower might be intended to convey a compliment to that sovereign, who, as is well known, liked to be called the Virgin Queen.

The *Clematis*, botanically considered, belongs to the order *Ranunculaceæ*, which is typified by such well-known regular flowers as the Buttercup of our meadows, and the Anemone of our flower-gardens. Of this variable set of plants, in which the outer floral whorl not unfrequently assumes, as it does in the particular instance before us, the character of a corolla, the *Clematis* is a somewhat aberrant member. The deviation from the usual floral structure, though not disturbing its regularity, extends either to the total abortion of the petals, as occurs in the genuine species of the genus, or to their very imperfect development in the form of petaloid staminodes—though probably in this case rather to be regarded as modified stamens than as true petals—as happens in a small section of the genus, which is frequently separated on account of this difference of structure under the name of *Atragene*. The genus is now, however, usually broken up into the four following sections:—

(i.) *Flammula*, in which the flowers are without involucre or petals, and the achenes or seed-like fruits are lengthened out into a bearded feathery tail—represented by *C. Flammula*.

(ii.) *Viticella*, in which the flowers are as in Flammula, but the achenes have only a short and not plumose tail—represented by *C. Viticella*.

(iii.) *Cheiropsis*, in which there is a two-bracted calyx-like involucre at the top of the pedicels, no petals, and a bearded plumose tail to the achenes—represented by *C. calycina*.

(iv.) *Atragene*, in which there is no involucre, the outer stamens passing gradually into the petaloid staminodes, and the achenes having a bearded plumose tail—represented by *C. alpina*.

In this work we propose to deal only with the

hardy species and varieties belonging to the group of *Clematis* proper, represented by the three former of the sections above named.

The *Clematis*, or Virgin's Bower, then, is a Ranunculaceous plant, with woody climbing (more rarely suffrutescent, or herbaceous) stems, which bear opposite leaves, these consisting usually of several leaflets, but occasionally of one only; the leaflets when more than one are present being disposed so as to form either a ternate, a pinnatisect, a biternate, or a triternate leaf. They have no tendrils, but in the climbing species the petioles and rachides of the leaves act as tendrils by clasping any objects within their reach. The flowers are produced singly or in cymose panicles; they are usually hermaphrodite, that is, both male and female organs are present in the same flower; but are sometimes diœcious, that is, having male and female flowers growing on separate plants. Except in the case of a small group of splendid species introduced from China and Japan, which have quite revolutionized the aspect of the *Clematis* of our gardens, the flowers are but small, or of moderate size. They consist of a varying number of valvate sepals, typically four in certain types, and from six to eight in others, though occasionally still more numerous; these are of a petaloid character, though true petals are entirely wanting in all that portion of the genus to which the present volume refers. The stamens are numerous, forming a conspicuous spreading tuft in the centre of the flower. The pistils are also numerous, forming a tuft surrounded by the stamens; and grow on into the one-seeded fruits, which

consist of achenes or seed-like fruits, each having, in some of the sections, a long-bearded plume attached to the summit, while the plume is absent in others.

It has already been stated that the species of *Clematis* are numerous, and it may be added that they are almost cosmopolitan, though they are most abundant in the temperate regions of both hemispheres, and are rare in the tropics. The scientific records give a total of about 230 species. Of these some 17 are European, chiefly occurring in the southern and eastern regions. Some 43 are of Indian origin, 9 are Javanese, and one reaches westward to Persia; about 30, comprising some of the finest of the species, come from China and Japan, 11 from the Siberian regions, and 2 from the Feejee Islands. South America produces 24 species, Central America and the West Indies between them 9, and North America about 35, many of the latter having long since found their way into our gardens. From Africa we have some 14 species natives of the tropical mainland; 4 others come from South Africa, while some one or two of the European species, *C. Flammula*, for example, extend into North Africa; and 6 species are found in the Mascaren Islands and Madagascar. New Holland and New Zealand yield their quota, the flora of the former including 15, that of the latter 5 species. This total of what are called "book species" Bentham and Hooker, in their recent *Genera Plantarum*, taking a synthetical view, compute at 100.

The only species which is native of this country is *C. Vitalba*, a rampant woody wayside climber, abundant in chalky soils, and in the autumn months

putting on an exceedingly interesting appearance when clothed with its profuse tufts of long gray plumose fruits, which have gained for it the title of Old Man's Beard. As a garden plant it is unimportant, except as a free-growing climber adapted for rapidly clothing or shutting out unsightly objects in undressed situations.

The prevailing property of these plants is acridity. Some of the species, indeed, as *C. erecta*, *C. Viorna*, *C. Flammula*, and *C. Vitalba*, are excessively acrid and vesicant, the leaves of the latter, the *Herbe-aux-gueux* of the French, being made use of by mendicants to produce superficial ulcers with which to excite public pity. The leaves of *C. cirrhosa* in the Mediterranean region, those of *C. crispa* in North America, and those of *C. mauritiana* in Madagascar, are said to be used in the place of cantharides.

About half a dozen species of *Clematis*—all European—found their way to this country about the end of the sixteenth century, namely, *C. Flammula*, *C. Viticella*, *C. cirrhosa*, and *C. integrifolia*, all in 1596, and *C. erecta* in 1597. The two former still hold an honourable position amongst the ornamental species, though eclipsed by later introductions, and more especially by recent acquisitions of hybrid origin. The catalogues do not credit the seventeenth century with any additions to our garden *Clematises;* but in the course of the eighteenth century some few are recorded: *C. crispa*, *C. Viorna*, and *C. orientalis*, in the former half, and *C. virginiana*, *C. ochroleuca*, *C. florida*, *C. calycina*, *C. angustifolia*, and *C. paniculata*, in the latter half.

Since the beginning of the present century the acquisitions have been not only more numerous, but more important; and to the introduction from China and Japan of *C. patens* and its varieties, of *C. lanuginosa*, *C. Fortunei*, and *C. Standishii*, we must ascribe the vast improvements which we now see in the *Clematis*—improvements which are probably unprecedented in the history of any of our popular flowers, when we take into account the number and variety of the acquisitions on the one hand, and the short space of time which has elapsed on the other. Taking them in chronological order, we find that this century gave us in its first decade *C. cylindrica*, *C. triternata*, and *C. campaniflora*, plants now seldom heard of. In the second decade we find recorded *C. Simsii* and *C. reticulata*, both rather doubtful plants, and *C. chinensis*, now never seen. The third decade gave us *C. dahurica*, *C. lineariloba*, *C. biternata*, *C. terniflora*, and *C. japonica*. *C. grata* and *C. montana* were introduced in 1831, followed by *C. patens*, *C. Sieboldii*, and *C. lathyrifolia*, all in the fourth decade. Then came *C. graveolens* and *C. tubulosa* in 1845, and *C. Grahami* in 1846; in 1851 the glorious *C. lanuginosa* was obtained; in 1854 *C. barbellata;* and finally, *C. Fortunei* and *C. Standishii* in 1863.

It is from these materials, or rather from a small proportion of the later introductions—*C. patens*, *C. lanuginosa*, *C. Fortunei*, *and C. Standishii* especially—that the magnificent varieties of *Clematis* now within reach of cultivators have been obtained.

Clematis.

1. Mrs James Bateman. 2. Viticella rubra grandiflora.

J L Macfarlane del. et lith.

CHAPTER I.

Modern Improvements in the Garden Clematis—Hybridization and Selection as means of Improvement—Earliest English hybrids —The Japanese forms of C. patens; Belgian and French varieties of C. patens—Mr. Anderson-Henry's lanuginosâ-patens hybrid—Messrs. Jackman's lanuginosâ-Viticella hybrids—MM. Simon-Louis' lanuginosâ-Viticella hybrids—Hybrids raised by M. Briolay-Goiffon; by M. Lemoine; by M. Rinz; by M. Carré; by M. Dauvesse; by M. Modeste-Guérin—Non-climbing Group; MM. Bonamy's hybrids—Mr. Cripps' varieties of lanuginosa, &c.—Mr. Noble's Standishii-Fortunei crosses—Messrs. Baker's lanuginosâ-Standishii cross—Mr. Anderson-Henry's lanuginosâ-Fortunei crosses—Messrs. Jackman's patente-Fortunei and patente-Standishii crosses—Novel sweet-scented race—General Result.

THE annals of Horticulture bear witness to the improvements which have resulted from the well-directed experiments of cultivators in the hybridizing or cross-breeding of the ornamental plants of other climes, after they have been introduced to our gardens. In fact, not a few of the finest plants we cultivate, owe their origin to this agency, or to the continued selection of the best seedlings. Some species in certain popular families have, indeed, been crossed and intercrossed until their fixity seems to have been completely broken up, and they now yield us seminal variations to an unlimited extent; while in others, the first sod only has, as it were, been turned, and rich diggings remain behind to reward the persevering operator. Considering what has been already done in this direction, as well as

the rich store of originals as yet untouched, and which is from year to year accumulating, intelligent cultivators, and clever painstaking experimentalists, should be encouraged to set themselves to work in good earnest at creating new forms of floral beauty. In this point of view, the *Clematis* may be looked on as a mine which has not yet become by any means worked out. Those readers who may feel inclined to turn this suggestion to practical account, will find a few brief hints as to the *modus operandi* of hybridizing in a subsequent chapter. Here, we propose rather to glance at what has been already accomplished.

One of the earliest successful attempts at hybridization which can now be traced is the case of *C. Hendersoni*, which was raised as long since as 1835 by the late Mr. Henderson, then of the Pine-Apple Nursery, but the parents of which, though supposed to be *C. Viticella* and *C. integrifolia*, are not certainly known. Its production was a decided gain.

The varieties of *C. patens (azurea* or *cœrulea)*, which were first made known, such as *C. Sophia*, *C. monstrosa*, *C. Amalia*, *C. Louisa*, &c., appear to have been introduced directly from Japan, through the agency of M. Von Siebold; but M. Van Houtte records in the *Flore des Serres* for 1850, a variety raised from seed by M. Lulon, a gardener at Libourne, and named *C. Luloni*, to which a silver medal was awarded, as a distinct and superior variety, at an exhibition held at Bordeaux. *C. atropurpurea* and *C. violacea* are amongst the early productions of the Belgian gardens, having been introduced to cultivation by M. Spae. M. Lemoine of Nancy was the raiser of some of

the first garden varieties of the patens race, such as *C. candidissima plena*, *C. florida pallida*, *C. florida violacea*, *C. patens amethystina plena*, &c. MM. Simon-Louis of Metz, again, have successfully wrought in this field, and to them we are indebted for several improved forms of the patens type, commencing with *C. Louisa plena*, obtained in 1862, and followed by *C. Marie* in 1865, *C. Clara* in 1868, and *C. Lucie* in 1871. The principal recent labourers in this department are Mr. Noble, and Messrs. G. Jackman and Son, whose productions will be hereafter noted.

Previously to this, however, hybridization had been commenced in a systematic way in the United Kingdom by Isaac Anderson-Henry, Esq., of Edinburgh, who was, we believe, first in the field, and who, in 1855, crossed *C. patens (azurea grandiflora)* with *C. lanuginosa*, the result being the production of *C. reginæ*, a handsome lavender-coloured variety of intermediate character, which, when shown in London in 1862, obtained a certificate of merit.

Next in order came the Woking hybrids, raised by Messrs. George Jackman and Son. These were the result of crossing *C. lanuginosa* by *C. Hendersoni* and *C. Viticella atrorubens* in the summer of 1858. The plants bloomed first in 1862, those named *C. Jackmanni* and *C. rubro-violacea* being shown at Kensington in August, 1863, and receiving certificates of merit of the first class. A large number of seedlings was raised from this cross, and many of them proved to be plants of great beauty, but having too close a resemblance in colour and general character to the above-named certificated varieties, to be required

for general cultivation. One, however, named *C. Viticella pallida*, bore expanded lilac flowers with red bars; while some of the seedlings, *e.g.*, those named *C. V. Mooreana* and *C. V. amethystina*, reverted to *C. Viticella*, producing the bell-shaped flowers characteristic of that species, though somewhat increased in size, and varying in colour from dark blue to pale greyish lavender. This sowing, moreover, yielded, besides the varieties originally sent out, namely, *C. Jackmanni* and *C. rubro-violacea*, the following distinct and ornamental sorts,* namely:—*C. Prince of Wales*, *C. rubella*, *C. magnifica*, *C. Alexandra*, and *C. velutina purpurea*, all of which possess the profuse and continuous-flowering habit characteristic of the Jackmanni strain.

Subsequent crosses made at the Woking Nursery, and in which *C. lanuginosa* was fertilized with some of the dark-coloured hybrids previously obtained, yielded the remarkably dissimilar varieties named

* In this place it is necessary to mention some hybrid *Clematises* exhibited in 1864 and 1865 by Mr. Townsend of Hornsey, but of which, singularly enough, nothing has since been heard. Mr. Townsend had been in Messrs. Jackman's employ as propagator up to the end of 1862, and himself gives the history of these varieties in the following words:—"The seed from which these *Clematises* were raised was hybridized and gathered by me. I came to Hornsey at Christmas, 1862, immediately after which the seed was sown. The plants exhibited were the produce of that seed. Some of them bloomed last year [1863], and one of the plants exhibited is a plant of this year's growth, and bloomed for the first time this summer." Of those exhibited in July, 1864, before the Royal Botanic Society, *C. lanuginosa violacea*, a dark purple, was awarded a 1st-class certificate; while *C. lanuginosa atropurpurea*, a reddish-violet, and *C. lanuginosa Hollandii*, violet, with a reddish bar, were severally awarded 2nd-class certificates at the same time. Of those exhibited in July, 1865, at the same place, *C. Miss Braddon*, a lilac-purple with pale bars, was awarded a 2nd-class certificate. The rest were named *C. Aurora Floyd*, violet, with indistinct white bar; *C. Lady Audley's Secret*, lavender; *C. Souvenir de Cardinal Wiseman*, reddish, with pale stripe; and *C. Rev. Canon Oakley*, a pale-coloured rough flower. As these appear to have passed out of cultivation, or in some way or other to have disappeared, we have not included them in our descriptive list of known varieties.

C. Mrs. James Bateman, *C. Beauty of Surrey*, and *C. Lady Bovill*, all pale greyish blues, the latter peculiarly cup-shaped in form; together with *C. Sir Robert Napier*, a deep rich purple; and *C. Thomas Moore*, in which the long rich purple sepals become associated with very prominent white stamens, thus giving quite a new character to the flowers.

To MM. Simon-Louis, of Metz, the lovers of the *Clematis* are indebted for some fine seedlings and ornamental hybrids. Indeed, in respect to hybrid varieties, these gentlemen, in spite, they say, "of the denials of the horticultural press," assume for their establishment the credit of being the very first in this particular field of improvement. They claim to have obtained in 1861, and put into commerce in 1863—a year earlier, they say, than the appearance of *C. Jackmanni*—their *C. splendida*, which they regard as the type of this superb group of hybrids. This, however, is not quite in accordance with the facts of the case; for setting aside Mr. Anderson-Henry's *C. reginæ*, raised in 1856, *C. Jackmanni* was raised in 1858, first flowered in 1862, certificated in 1863, and if not put into commerce till after *C. splendida*, it was at least well known to English cultivators. The earlier of the Metz varieties were improved seedlings of *C. patens*, as already stated. Of the hybrid forms, *C. splendida*, just referred to, was obtained in 1861, from *C. lanuginosa* crossed with *C. Viticella grandiflora*, and was sent out in 1863. Two years later, in 1865, *C. fulgens*, a variety of the same parentage, with richly-coloured, but very narrow sepals, was sent out; and in 1867 this was fol-

lowed by *C. perfecta*, a bold French-white flower, which eventually bleaches white.

One of the earliest of the Continental raisers of hybrid varieties of the larger type, was M. Briolay-Goiffon, of Orleans, who in 1860 obtained as a cross between *C. lanuginosa* and *C. patens* the variety named *C. Aureliani*, a handsome free-blooming plant, with well-formed porcelain-blue flowers, not sent out, as M. Briolay informs us, until 1865. The names of M. Lemoine of Nancy, M. Rinz of Frankfort, M. Carré of Troyes, and M. Dauvesse of Orleans, are also honourably associated with the improvement of the grand summer and autumn-flowering *Clematises*. From M. Rinz, we obtained *C. francofurtensis*; from M. Lemoine, *C. lanuginosa candida* and *C. lanuginosa nivea*, as well as *C. Otto Frœbel*, and recently the fine double-flowered *C. Lucie Lemoine*, the latter apparently belonging to our florida type; from M. Carré, besides one or two earlier and now superseded sorts, we gained *C. Gloire de St. Julien*, *C. Impératrice Eugénie*, and others; while from M. Dauvesse, we have *C. Jeanne d'Arc*, and *C. Renaultii cœrulea grandiflora*. Besides these, we owe obligations to M. Modeste-Guérin for such admirable varieties of the Viticella and Jackmanni groups as *C. modesta* and *C. purpurea hybrida;* while M. Lemoine has set his mark upon the herbaceous race by the production of the double-flowered variety of *C. erecta*. The subshrubby but non-climbing section has been improved by MM Bonamy Frères, who were the fortunate raisers of *C. intermedia rosea*, and *C. diversifolia cœrulea*.

The Messrs. Cripps and Son, of Tunbridge Wells,

may justly claim a foremost place amongst the successful English hybridizers of the *Clematis* family. They have been fortunate enough to obtain an extensive series of varieties from *C. lanuginosa*, the majority of which partake very much of the general character of this fine species, as to foliage and flowering habit, and which are extremely ornamental plants in the late summer and autumn months. Amongst these may be specially mentioned, for their large size and fine shape, the mauve-tinted variety named *Lady Caroline Nevill*, which was exhibited and gained a certificate in 1866; and *Marie Lefebvre*, also mauve-tinted, and *Madame Van Houtte*, a flushed white, both certificated in 1867. Some few of the Tunbridge Wells varieties, indeed, as *C. tunbridgensis* and *C. Star of India*—the latter in the way of *C. magnifica*—resemble the Woking hybrids of the Jackmanni type, in style of growth and inflorescence; but the greater number of the named sorts we have seen, are evidently more closely allied to *C. lanuginosa*. We are not aware what specific crosses were made by Mr. Cripps, but he has certainly been eminently successful in obtaining large and finely-formed light-coloured flowers.

Next in order amongst English hybridizers comes Mr. C. Noble, of Sunningdale, who has brought forward a set of novelties, bred indiscriminately from the intercrossing of *C. Standishii* and *C. Fortunei*, the seedlings mostly resembling the former both in habit and foliage, and in the finely-formed, freely-produced, flatly-expanded flowers. They show, as do some more recent hybrids raised at Woking, as great

an advance in the spring-flowering section, as do the summer and autumn-blooming sorts raised by Mr. Jackman, Mr. Cripps, and Mr. Anderson-Henry in the later-flowering groups. In these early varieties, whose beauty is over by midsummer, and which blossom from the ripened wood of the previous season, the flowers have normally eight sepals, but they occasionally produce more—even nine, ten, or eleven. The average diameter of the flower is from five to six inches, the sepals overlapping for about two-thirds of their length, so that the flowers are full and perfect in form; individually they endure about eighteen days, from their first opening to their fall, and during this time enlarge or expand about one-fourth. The range of colours resulting from this cross may be illustrated by the citation of *C. Miss Bateman*, a fine pure white; *C. Princess Mary*, a pale pink; *C. Lady Londesborough*, a silver-grey, and *C. Albert Victor*, a deep lavender. Mr. Noble's varieties were first exhibited and certificated in 1869.

We are indebted to Messrs. G. Baker and Son, of Bagshot, for the happy thought of crossing *C. lanuginosa* with *C. Standishii*, these being the parents of *C. Gem*, in the production of which we have a result, which, so far as the individual flowers are concerned, is barely distinguishable from that of the crossing of *C. lanuginosa* with *C. patens*, as effected at an earlier date by Mr. Anderson-Henry, and which, as already stated, was the origin of *C. reginæ*. The flowers of *C. Gem* and *C. reginæ* are indeed almost exactly alike in size, form, and colour, the only material difference being that in the former the

stamens are somewhat darker in colour. *C. reginæ*, however, appears to be a more sparse bloomer than *C. Gem*, which, as we are informed, commences to bloom in May, and certainly produces an abundance of buds and blossoms as late as the middle of October, as evidenced by specimens which have been sent to us for examination. In this particular, and in its vigorous growth, and the size of its flowers, it has followed *C. lanuginosa*, whilst the colour appears to have come from its other parent, *C. Standishii.*

Some of the most startling results of hybridization, as to the size of the flowers, have been obtained by Mr. Anderson-Henry, in a set of recent hybrids which has passed into Messrs. Lawson's hands. One of these, *C. Lawsoniana*, occasionally bears flowers upwards of nine inches across. The other varieties, named *C. Henryi* and *C. Symesiana*, also rank amongst the large-flowered sorts of well-filled outline. Mr. Anderson-Henry has been good enough to communicate some particulars of the history of these plants, which, as it must be of much interest to hybridizers, we here transcribe:—

"The varieties above named belong to the lanuginosa type, *Clematis lanuginosa* being the seed-bearer, and *C. Fortunei* the male parent. Some of the seedlings, also in Messrs. Lawson's hands, flower early; but others, to which group those announced, and which are mentioned above belong, do not bloom before August, and go on till November or later. In fact, I have them under glass flowering now (January 18).

"As to size, they average from four or five to eight or nine inches diameter, but this last size is the extreme: a bloom of *C. Lawsoniana*, a large-flowered variety, has indeed attained nine and a half inches.

"As to colour of the flowers, there is something to me wholly inexplicable in all this *lanuginosâ-Fortunei* brood; for while the seed-bearer *C. lanuginosa* has pale lilac flowers, and *C. Fortunei*, the male

parent, has pure white semi-double blossoms, those of some of their progeny deepen into blue or azure, banded sometimes with darker shades, in which a tint of rose comes up. How they should have any shade of blue at all, and still more how they should have darker-shaded bands, is utterly unaccountable to me from all the experience I have had, unless I should be right in an assumption which has been forced upon me, namely, that *C. Fortunei* is a white-flowered seedling variety of a blue-flowered species—perhaps of *C. John Gould Veitch*, these being, so far as I remember, much alike in their general habit, foliage, and inflorescence, even to the semi-double flowers which both possess. The latter is, no doubt, the more vigorous in growth,* and it has its flowers larger and more double than those of *C. Fortunei*—consequences natural enough, if I am right in this assumption: just as occurred in the white-flowered seedling sport from the lovely blue-flowered *Salvia patens*, which never had the vigour of the original form. My theory is that the sport will sometimes retrogress. I had proof of this in that same white *Salvia*, the seeds of which I sowed, when the seedlings went back into the species, but having flowers of a paler blue. In this way I think I can account for many of those varieties already put out, derived, I assume, from much the same parentage as mine, having the size, colouring, and banding all so different from their parents; for in all my efforts with this tribe—and I began with it, I believe, first in this country, the seeds of my hybrid, *C. reginæ (C. azurea grandiflora* × *C. lanuginosa)* having been sown in 1855, long before *C. Jackmanni*, the next, I think, in order, was heard of—in all these efforts, and I have been working on it ever since, I could reckon with some confidence as to the colours to be produced by crossing, till in this last case I felt bewildered. Now it is very notable that though a white-flowered sport may go back in its seedlings to its original blue-flowered species, the white may be fixed, or at least reproduced in the offspring. Hence I have from seeds of the same head, not only the blue and azure-flowered varieties above noticed, but the pure-white or creamy-white *C. Henryi*, and others not yet announced.

"As to the number of the sepals, these vary even in the same group. In that just noticed (*lanuginosâ-Fortunei*), there are generally six to eight in each flower. To my taste these should stand out straight from the disk, neither incurving nor reflexing.

"Besides the above group I have other crosses, but in all of them the element of size, now so much regarded, falls far short of the approved standard. Thus, in a seedling of *C. lanuginosa candida* × *C. Jackmanni*, the

* This does not accord with our experience at Woking, the variety referred to being particularly liable to assume a weakly habit of growth.

pollen of which last had been previously stored for eleven months, the flowers, which were of a pretty blue, and six-sepaled, were only three and a half inches in diameter, though *C. candida*, of French origin, has very large flowers. So from another cross, my hybrid *C. reginæ* crossed with *C. rubro-violacea*, I have a seedling bearing flowers of a pale purple, six-sepaled as in the seed-bearer, and flowering from May to December in great profusion, but the flowers are equally small.

"I wrought hard to infuse the rich colour of Mr. Jackman's seedlings into hybrids having larger flowers, by crossing them with all the large-flowered varieties I possessed, but failed; and when I inverted the cross by making them the male parents, the seedlings all came deficient in size, as taste now rules."

The variety which, so far as we know, most fully realizes the combination of large size with rich deep colouring, is that named *C. Thomas Moore*, the flowers of which measure from eight to nine inches across, and are of a deep pucy-violet, a depth of colour the effect of which is very much enhanced by the prominent white filaments of the stamens. This variety, so far as its history can be traced, was the result of crossing *C. Jackmanni* again with *C. lanuginosa.*

A more recent brood raised at the Woking Nursery, and which first flowered in 1871, was obtained from the intercrossing of *C. patens (azurea grandiflora)*, *C. Fortunei*, *C. Standishii*, and *C. Sophia plena*, with *C. Jackmanni*, *C. rubella*, *C. rubro-violacea*, and *C. magnifica*, the crosses being also reversed. The seedlings obtained from the specific crosses were unfortunately not kept separate, so that the results can only be referred to in general terms. One portion of the plants followed the early-flowering parents of the patens type; while the other portion partook more of the character of the late summer-flowering parents of the Jackmanni race, but appar-

ently so far influenced by the early-flowering parents as to somewhat advance the blooming period—a result which was indeed aimed at in making the cross, as it was desired to bridge over the interval which naturally occurs between the flowering season of the earlier and later types respectively. The growth and flowering properties of these seedlings have proved in the highest degree satisfactory. Those which took on the habit and character of the patens type, showed considerable diversity of colour, *C. Vesta* having the flowers white; *C. Edith Jackman*, *C. Fair Rosamond*, and *C. Maiden's Blush*, being white, more or less tinted and barred with red; *C. George Cubitt*, *C. Lord Derby*, and *C. The Queen*, shades of mauve and lavender—the latter, though an early bloomer, remarkable in the full outline of its flowers, for a strong resemblance to *C. lanuginosa*; *C. Lord Mayo*, and *C. Countess of Lovelace*, shades of lilac, the latter double-flowered, and remarkable among the double sorts for having anemone-formed flowers, that is, flowers with an outer row of guard sepals, and in the centre a rosette of smaller ones; and finally, *C. Stella*, in which the flowers are light violet, with plum-red bars. The proper grouping of these in reference to the cultural sections we have adopted is sufficiently evident; but further experience is needed with those which follow. One, which has been named *C. Unique*, and which is peculiar on account of its green flowers, appears to take on rather the characters assigned to the florida section; while another, *C. Baroness Burdett-Coutts*, with Solferino-pink flowers, rather later in blooming, bears a close

general resemblance to the lanuginosa group. Of those which, judging from foliage and general habit, have taken on the characteristics of the Jackmanni type, there are *C. Lady Stratford de Redcliffe*, with the flowers mauve-coloured; *C. Princess Louise*, a large bluish-lilac; *C. Mrs. Moore*, a very large midseason white; *C. W. E. Essington*, a reddish violet; *C. Lord Polwarth*, a dark mottley violet; and *C. Marquis of Salisbury*, a dark plum-colour, particularly noticeable for its rich velvety surface.

Some of these, namely, *C. Fair Rosamond*, *C. Edith Jackman*, *C. Maiden's Blush*, *C. The Queen*, *C. Stella*, and *C. Vesta* prove to be remarkable for the strong and agreeable fragrance, intermediate between that of violets and primroses, which they exhale when in a warm sunny atmosphere, and which is most pronounced in the variety named *C. Fair Rosamond*. The odour varies, inclining in the three first-named sorts to that of the violet, in the three latter to that of the primrose; and has been probably derived from *C. Fortunei*, in which an agreeable but not powerful odour had been previously observed.

Thus, within the last ten years, the Hardy Clematis has been converted from an ordinary climbing shrub, handsome indeed in some, and elegant in all its forms, to one of the most gorgeous of garden ornaments, unrivalled as a flowering woody climber; while for wall or conservatory decoration generally, for poles and pyramids, for rockeries and rooteries, it is infinitely improved, and as a bedding plant affords altogether a new sensation in flower-gardening.

CHAPTER II.

Classification of the Hardy Species and Varieties of Clematis—Botanical Classification unimportant for Garden purposes—Cultural Classification preferable—Key to the Groups—Definitions of the Sections.

BOTANICALLY considered, the majority of the varieties of *Clematis* which are of importance as garden ornaments, range under *C. patens*, *C. lanuginosa*, and *C. Viticella;* the first representing the spring-blooming, the second the summer and autumn-blooming groups, respectively, while a third set, including the more important of the remainder, consists of the beautiful varieties of *C. Viticella*, and the fine hybrids which in part owe their parentage to it. A more definite scientific classification has been noted in the introductory chapter, but neither that, nor the one just indicated by the foregoing citation of species, is of much utility from the horticulturist's point of view; hence arises the necessity of adopting, for garden purposes, a system of classification based rather upon cultural than upon botanical considerations.

The sectional groups, then, which we suggest, are intended to be strictly cultural and seasonal, and are to be so regarded—in fact, as being framed entirely for the guidance and convenience of the cultivator, and not as having any special relation to the botanical affinities of the various plants. A comprehensive idea of the considerations which have

presented themselves in arranging the various forms, may be gained from the annexed key to the groups themselves :—

CLIMBING PLANTS.

Flowering on the year-old ripened wood—	
Flowers medium-sized (winter and spring-bloomers)...	§ 1. MONTANA type.
Flowers large.	
Spring-bloomers...	§ 2. PATENS type.
Summer-bloomers	§ 3. FLORIDA type.
Flowering from the young growing summer wood—	
Flowers small (late summer-bloomers)	§ 4. GRAVEOLENS type.
Flowers large (summer and autumn-bloomers).	
Flowers successional dispersed...	§ 5. LANUGINOSA type.
Flowers successional massed ...	§ 6. VITICELLA type.
Flowers profusely massed continuous	§ 7. JACKMANNI type.

NON-CLIMBING PLANTS.

With subshrubby stems...	§ 8. CŒRULEA ODORATA type.
With herbaceous stems...	§ 9. ERECTA type.

This mode of classification will be found to bring together all those species and varieties which are similar in habit and character, and will, moreover, assist us in arranging, in some intelligible order, the instructions we shall have to offer regarding the cultivation of the different types of *Clematis*. The following are the more complete definitions of the sections enumerated above :—

§ 1. Climbing winter and spring-bloomers, with medium-sized flowers, in aggregated axillary clusters on the old or ripened wood,—Type: *C. montana*, other examples being furnished by *C. barbellata* and *C. calycina*.

§ 2. Climbing large-flowered spring-bloomers, flowering from the old or ripened wood.—Type: *C. patens;* this is one of the more

extensive groups, and furnishes other examples in *C. Standishii*, *C. Helena*, *C. Victor Lemoine*, *C. Lady Londesborough*, *C. Edith Jackman*, *C. Countess of Lovelace*, &c.

§ 3. Climbing large-flowered summer-bloomers, flowering from the old or ripened wood.—Type: *C. florida*, other examples being furnished by *C. Sieboldii*, *C. Fortunei*, and *C. John Gould Veitch*.

§ 4. Climbing small-flowered late summer-bloomers, flowering (often in panicles) from axillary growths of the much-branched leafy young or summer wood.—Type: *C. graveolens*, other examples being furnished by *C. grata*, *C. orientalis*, *C. Vitalba*, &c.

§ 5. Climbing large-flowered summer and autumn-bloomers, flowering successionally on short lateral summer shoots, the flowers sparse or distributed.—Type: *C. lanuginosa*; one of the more comprehensive groups, and further illustrated by *C. Otto Frœbel*, *C. Henryi*, *C. Gloire de St. Julien*, *C. Gem*, *C. Lady Caroline Nevill*, &c.

§ 6. Climbing large-flowered summer and autumn-bloomers, flowering successionally in profuse masses on summer shoots, but less continuously than in § 7.—Type: *C. Viticella*, other illustrations being afforded by *C. Hendersoni*, *C. Thomas Moore*, *C. Lady Bovill*, *C. Mrs. James Bateman*, &c.

§ 7. Climbing large-flowered summer and autumn-bloomers, flowering successionally in profuse continuous masses on summer shoots.—Type: *C. Jackmanni*; to this group also belong *C. rubella*, *C. magnifica*, *C. Star of India*, *C. tunbridgensis*, *C. Flammula*, &c.

§ 8. Non-climbing summer and autumn-bloomers of subshrubby habit, flowering successionally on summer shoots.—Type: *C. cœrulea odorata*, other examples occurring in *C. diversifolia cœrulea*, and *C. intermedia rosea*.

§ 9. Non-climbing summer and autumn-bloomers of herbaceous habit.—Type: *C. erecta*, other examples being met with in *C. tubulosa*, *C. maritima*, *C. lathyrifolia*, *C. integrifolia*, &c.

CHAPTER III.

Selections for various purposes—for the Conservatory—for the Conservative wall—for Bedding-out—for Pillars, Poles, &c.—for Rockwork, Rooteries, &c.—for Festooning—for Exhibition—for the Herbaceous border—for covering Arbours, &c.

THOUGH almost all the cultivated species and varieties of *Clematis* may be regarded as ornamental plants, and well worthy of cultivation, yet where the variety is so great, some even of those in the same groups must necessarily be superior to others for particular purposes. The varieties of the different groups, again, are specially adapted for occupying certain positions, and for application to special uses. Hence it has been thought desirable to devote the present chapter to an enumeration of those sorts which are considered to be the most meritorious and best adapted for cultivation, in the manner, and for the purposes, indicated by the special headings. In nearly all cases, the recommendations are made from personal knowledge of the plants, a few only of the newest sorts being included on other grounds:—

1.—For Pot-Culture in the Conservatory.

C. Albert Victor.
C. Edith Jackman.
C. Fortunei.
C. Fair Rosamond.
C. John Gould Veitch.
C. Lady Londesborough.
C. Lord Derby.
C. Lord Londesborough.
C. Lord Mayo.
C. Miss Bateman.
C. Maiden's Blush.
C. Princess Mary.
C. Sieboldii.
C. Sophia plena.
C. Standishii.
C. The Queen.

2.—For Planting Out in the Conservatory.

C. Albert Victor.
C. Beauty of Surrey.
C. Countess of Lovelace.
C. Edith Jackman.
C. Fair Rosamond.
C. Fortunei.
C. Gem.
C. George Cubitt.
C. Gloire de St. Julien.
C. Henryi.
C. John Gould Veitch.
C. Jeanne d'Arc.
C. Lady Caroline Nevill.
C. Lady Maria Meade.
C. Lady Londesborough.
C. lanuginosa.
C. lanuginosa candida.
C. lanuginosa nivea.
C. Lord Derby.
C. Lord Londesborough.
C. Lord Mayo.
C. Madame Van Houtte.
C. Maiden's Blush.
C. Miss Bateman.
C. Mrs. Howard Vyse.
C. Mrs. Moore.
C. perfecta.
C. Princess Mary.
C. reginæ.
C. Sensation.
C. Sieboldii.
C. Sophia plena.
C. Standishii.
C. Stella.
C. The Queen.
C. Vesta.

3.—For Planting against Conservative Walls and in Corridors.

Spring-flowering sorts (for S., W., or N.W. aspects only).

C. Albert Victor.
C. barbellata.
C. calycina.
C. Countess of Lovelace.
C. Edith Jackman.
C. Fair Rosamond.
C. George Cubitt.
C. Lady Londesborough.
C. Lord Derby.
C. Lord Londesborough.
C. Lord Mayo.
C. Maiden's Blush.
C. Miss Bateman.
C. monstrosa.
C. montana (any aspect).
C. montana grandiflora.
C. patens floribunda.
C. Sophia plena.
C. Standishii.
C. Stella.
C. The Queen.
C. Vesta.

Early Summer-flowering sorts.

C. Fortunei.
C. Lucie Lemoine.
C. John Gould Veitch.
C. Sieboldii.

Late Summer-flowering and Autumn-flowering sorts.

C. Alexandra.
C. cœrulea odorata.
C. Flammula.
C. Gem.
C. Gloire de St. Julien.
C. Henryi.
C. Jackmanni.
C. Jeanne d'Arc.
C. Lady Bovill.
C. Lady Caroline Nevill.
C. Lady Maria Meade.
C. lanuginosa.
C. lanuginosa candida.
C. lanuginosa nivea.
C. Lawsoniana.
C. Madame Van Houtte.
C. magnifica.
C. marmorata.
C. Mrs. James Bateman.
C. Otto Frœbel.
C. perfecta.
C. Prince of Wales.
C. purpurea hybrida.
C. reginæ.
C. Renaultii cœrulea grandiflora.
C. rubella.

C. rubro-violacea.
C. Sensation.
C. splendida.
C. Star of India.
C. Thomas Moore.
C. tunbridgensis.
C. velutina purpurea.
C. Victoria.
C. Viticella rubra grandiflora.
C. Viticella venosa.

4.—For Permanent Bedding-out.

Spring-flowering sorts.

C. Helena.
C. patens.
C. Sophia.
C. Standishii.

Late Summer-flowering and Autumn-flowering sorts.

C. Alexandra.
C. Jackmanni.
C. magnifica.
C. Prince of Wales.
C. rubella.
C. rubro-violacea.
C. Star of India.
C. tunbridgensis.
C. velutina purpurea.

5.—For Growing on Pillars, Poles, &c.

C. Alexandra.
C. Beauty of Surrey.
C. Excelsior.
C. Flammula.
C. Gem.
C. Gloire de St. Julien.
C. Henryi.
C. Jackmanni.
C. Jeanne d'Arc.
C. Lady Bovill.
C. Lady Caroline Nevill.
C. Lady Maria Meade.
C. lanuginosa.
C. lanuginosa candida.
C. lanuginosa nivea.
C. Lawsoniana.
C. Madame Van Houtte.
C. magnifica.
C. Marie Lefebvre.
C. marmorata.
C. Mrs. James Bateman.
C. Otto Frœbel.
C. Prince of Wales.
C. reginæ.
C. rubella.
C. Sensation.
C. Sir Robert Napier.
C. Star of India.
C. Thomas Moore.
C. tunbridgensis.
C. velutina purpurea.
C. Victoria.
C. Viticella rubra grandiflora.
C. Viticella venosa.

6.—For Planting on Rockwork, Rooteries, &c.

C. Alexandra.
C. Flammula.
C. graveolens.
C. Hendersoni.
C. Jackmanni.
C. Lady Bovill.
C. magnifica.
C. marmorata.
C. modesta.
C. Mrs. James Bateman.
C. orientalis.
C. Prince of Wales.
C. purpurea hybrida.
C. Renaultii cœrulea grandiflora.
C. rubella.
C. rubro-violacea.
C. splendida.
C. Star of India.
C. Thomas Moore.
C. tunbridgensis.
C. velutina purpurea.
C. Viticella atrorubens.
C. Viticella major.
C. Viticella purpurea plena.
C. Viticella rubra grandiflora.
C. Viticella venosa.

7.—For Festooning.

C. Alexandra.
C. Flammula.
C. Gem.
C. Jackmanni
C. magnifica.
C. Prince of Wales.
C. purpurea hybrida.
C. Renaultii cœrulea grandiflora.
C. rubella.
C. rubro-violacea.
C. splendida.
C. Star of India.
C. tunbridgensis.
C. velutina purpurea.

8.—For Exhibition Purposes.

Spring-flowering sorts.

C. Albert Victor.
C. Edith Jackman.
C. Fair Rosamond.
C. Lady Londesborough.
C. Lord Derby.
C. Lord Londesborough.
C. Lord Mayo.
C. Maiden's Blush.
C. Miss Bateman.
C. Mrs. Howard Vyse.
C. Princess Mary.
C. Sophia plena.
C. Standishii.
C. Stella.
C. The Queen.
C. Vesta.

Early Summer-flowering sorts.

C. Fortunei.
C. Gem.
C. John Gould Veitch.
C. patens floribunda.
C. reginæ.
C. Sieboldii.

Late Summer-flowering and Autumn-flowering sorts.

C. Alexandra.
C. cœrulea odorata.
C. Gloire de St. Julien.
C. Jackmanni.
C. Lady Bovill.
C. Lady Caroline Nevill.
C. lanuginosa.
C. lanuginosa candida.
C. lanuginosa nivea.
C. Madame Van Houtte.
C. magnifica.
C. Mrs. James Bateman.
C. Prince of Wales.
C. rubella.
C. Star of India.
C. Thomas Moore.
C. tunbridgensis.
C. velutina purpurea.

9.—For the Herbaceous Border.

C. cœrulea odorata.
C. Davidiana.
C. diversifolia cœrulea.
C. erecta plena.
C. integrifolia.
C. intermedia rosea.
C. lathyrifolia.
C. maritima plena.
C. tubulosa.
C. Viticella nana.

10.—For Covering Arbours, Screens, &c.

C. Flammula.
C. Grahami.
C. grata.
C. graveolens.
C. montana.
C. orientalis.
C. Viorna.
C. virginiana.
C. Vitalba.
C. Viticella.

PLATE III.—CLEMATIS PATENS.

CHAPTER IV.

General Culture of the Clematis—the Montana (§ 1) type—the Patens (§ 2) type—the Florida (§ 3) type—Positions for which they are adapted—Soil and Planting—Manuring—Mulching—Training—Pruning.

THESE sections include the earliest or spring-flowering division of the family. The majority of the species and varieties of which they consist come into blossom naturally about May; but some few of them, *e.g.*, *C. calycina* and its allies, are much earlier than this, and blossom from the commencement of the year onwards. These latter are best suited for planting against walls, in warm sheltered situations, where their opening flowers may be in some degree protected against inclement weather. The varieties belonging to *C. patens* [Plate III.] and *C. florida* [represented by *C. Sieboldii*, Plate XVII., one of the same type], are perfectly adapted for planting against conservative walls or in corridors, and some of them make elegant early-blooming beds, especially in positions where their blossoms are thoroughly sheltered either naturally or artificially, from severe spring frosts, which occasionally, though rarely, may somewhat injure them.

C. montana [Plate VIII.] also a spring or May bloomer, is of vigorous growth, and perfectly hardy, and is specially adapted for covering walls, or trellises, or arbours, or in fact for planting in any position where rapidity of growth is desired. The same may be said

of the species of the graveolens type, hereafter to be noticed, and which mostly flower later in the year.

None of these plants, especially those of the montana type, are very particular as to soil, but will grow in any good garden earth which is fairly enriched, efficiently drained, and maintained in a healthy state as regards its mechanical composition—that is, kept open so that water may freely percolate, and the air readily permeate it. Where it can be provided, a rich soil of a light loamy texture is the best for all these plants, and if this be mixed, either naturally or artificially, with chalk or lime, so much the better for the *Clematises*. Thorough drainage is indispensable to good healthy development; and the vigour of the plants must be kept up by at least annual manurings with horse or cow manure, or that happy fertilizing mixture known as 'farmyard muck,' these being alike salutary applications. On dry hot soils, cow manure would probably be preferable; while on heavy soils a thorough dressing of good leaf-mould would be beneficial.

Mulching, which consists in covering the surface of the soil for some little distance round about the plants with half-rotten dung, is another mode of manuring, from which the plants derive no inconsiderable amount of benefit. This operation should be performed annually on the approach of winter, and is more necessary after the plants have become established, as the manure applied at the time of planting will then be more or less exhausted. The mulching acts, moreover, as a protection to the roots in the case of severe weather, and though not neces-

sary on this score—the plants being thoroughly hardy—is certainly not injurious. The effect of mulching would be to increase the strength of the plant, and at the same time the size of the flowers.

When growth commences in the spring-time, the young shoots must be attended to, and trained around or against the supports provided for them, whatever these may be. The weaker shoots may, if necessary to prevent entanglement, be cut away during the summer; but all the vigorous shoots for which there is space should be trained in, since it is these, when thoroughly developed and matured, which furnish the flowers for the ensuing year.

The strong growing sorts of the montana type are good verandah plants, and suited for rapidly covering any bare spaces which require clothing; but the less robust plants of the florida and patens types are better suited for training on conservative walls or for furnishing corridors, or any similar positions where their elegant and showy blossoms may be brought more closely into view.

Pruning is one of the important points of good management, and on its due performance mainly rest the chances of having a fine display of flowers. Only the weaker, or straggling, or overcrowded branches should be cut away. The strong one-year-old wood should be trained in, as far as it has become thoroughly ripened, beyond which it may be cut away; and this should be so disposed as to fill up all vacant spaces. The pruning should take place in the month of February or March, after the severe frosts of winter have passed away.

CHAPTER V.

General Culture of the Clematis—the Graveolens (§ 4) Type—Soil—Uses in the Garden—Pruning.

THIS small group comprises a series of thoroughly hardy fast-growing species, which may be said to require scarcely any cultivation. They grow freely enough in any ordinary garden earth which is of sound texture, and fairly drained; though many, probably most, of them have a preference for soil of a calcareous character. They will scramble over trellises or thickets, or clamber up snaggy poles, or amongst the boughs of trees, and therefore may be employed in any position where a summer screen is wanted; but being deciduous they are not adapted to form winter screens. As to training, they make holdfasts of their leaf-stalks, and thus take care of themselves; and the natural growth thus made and thus disposed, would in most cases be of a more picturesque character than would result from artificial training. If, however, they are required to cover any particular spot, the main branches should of course be led, and as far as necessary fixed, in that direction.

The only pruning which is required in the case of the plants belonging to this group is to thin out superfluous or entangled growths, and to restrict the plants within the bounds that may be assigned to them. On the other hand, if severe pruning should

for any particular reason become necessary, no amount of cutting will do permanent injury to the plants, nor affect their growth or their blooming, unless, indeed, it is so persistently followed up as to interfere with that fair share of leaf development which is necessary to maintain health and vigour in all plants.

It has been remarked that *Clematises* of this type will, if permitted, clamber up amongst the boughs of trees. When, however, they are planted near to or beneath large trees, or at all within their influence, it is desirable, in order to promote vigorous and rapid growth, to mulch the surface of the soil during winter, forking in the manure about the month of March. In such situations, too, it may chance that drought may overtake the roots, since not only will the trees themselves suck up much of the available moisture, but in a greater or less degree they will keep off the natural supply which comes in the shape of rain. In dry weather, therefore, and especially until the plants become tolerably well established, the artificial application of water, in such quantities as circumstances may render necessary or desirable, should not be forgotten.

CHAPTER VI.

General Culture of the Clematis—the Lanuginosa (§ 5) Type—Preparation of the Soil—Liberal Culture necessary—Adaptations—Pruning and Training.

THE remarks which have already been made as to soil in the chapters devoted to the preceding sections, will apply equally to this group. The plants are of a hardy constitution, and a tolerably vigorous habit of growth; and they produce blossoms of enormous size, so that liberal cultivation is for them an absolute necessity. They will, indeed, succeed in any good, sound, well-drained garden soil, which is freely and annually manured, but they would no doubt prefer a light mellow loam to any other basis, and therefore in the case of very light soils, it would be a material benefit to them to resort to the admixture of the best loam that may be available, in trenching up and preparing the ground before setting out the plants. The more fertile the natural soil the less manuring will be necessary, and *vice versâ*; but it should be understood that in any case a really well-enriched soil, either natural or artificial, should be secured if the full beauty of this race of the *Clematis* is sought to be developed.

C. lanuginosa [Plate IV.] and the varieties of this type of growth are exceedingly well adapted for planting against conservative walls or trellis-work, whether the latter be put up in the form of a screen

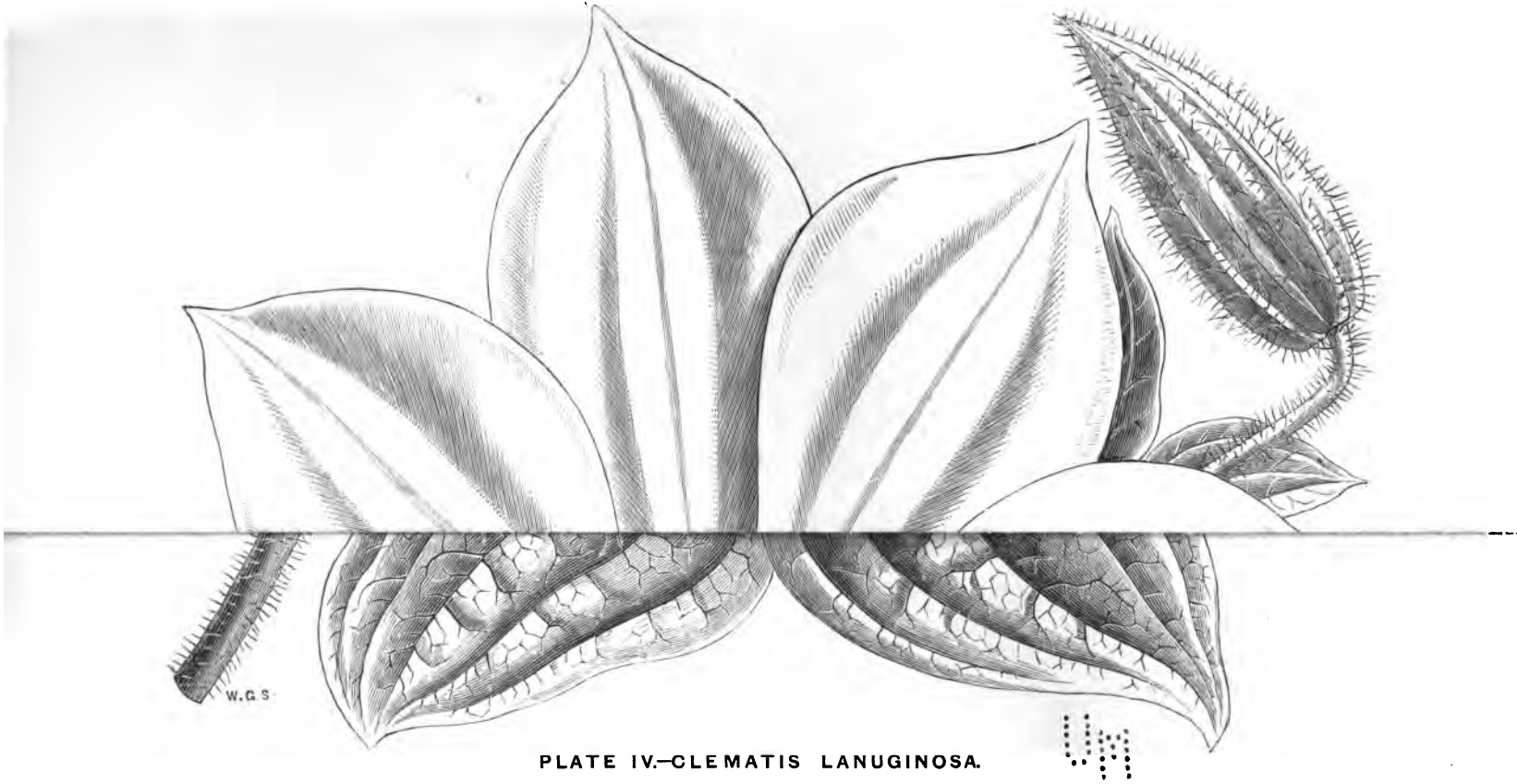

PLATE IV.—CLEMATIS LANUGINOSA.

or a verandah, and they are also suitable for poles or pyramids. In the latter cases, especially, they should be annually pruned down to about 3 ft. from the ground-surface, to prevent them from becoming lanky and bare of new shoots near the base, the tendency of the new growth being to develop itself with excessive vigour at the extremities. When thus cut rather low, so as to secure a supply of foliage at or near to the base, the beauty of the plants is much enhanced. The same remarks apply to those on walls or trellises, if they are required to cover an allotted space; but in this case it frequently happens that the lower part can be filled out by less aspiring subjects, and then it is as well to secure and utilize the more vigorous growth of the plants towards the top. In any case, the successional summer growths should be trained in so as to secure the later crops of blossoms, the habit in this race being to throw out a sprinkling of flowers at intervals, till the frosts come to arrest further growth.

It will be evident from what has already been said that comparatively slight pruning is here required. The type itself, and those varieties which come nearest to it in habit, indeed, die back almost sufficiently to render pruning unnecessary; but in those instances where a mixture of blood has led to a more extended growth, it will be necessary to cut so as to remove the weakly and ill-ripened portions of the year-old wood. Under favourable conditions, the plants will make an annual growth of from 8 ft. to 10 ft. in length, and of this the unripened extremities, together with the weak or superfluous shoots, and the dead

wood, are the only parts which ought to be removed. This pruning is best done in February, after the severe winter frosts are past, and before the plants burst out into new growth.

We have said that these plants are hardy, and for all practical purposes they may be so regarded. They are, however, less robust in constitution than some of the allied groups, and hence in their case, the mulching which has been recommended as an advantage to all, may be looked upon as being rather more of a necessity, provided the plants occupy positions where such an application would be at all admissible. The annual feeding, by working in some half-decayed manure during the early spring, should on no account be omitted, as the size and succession of the blossoms depend entirely upon the vigour which is kept up in the plants; but where the mulching of manure would be objectionable, because unsightly, a surface covering of some other protective material, such as the refuse of the fibre of the cocoa-nut, would be a desirable substitute for it.

CHAPTER VII.

General Culture of the Clematis—The Viticella (§ 6) Type—The Jackmanni (§ 7) Type—Fertility of flowers—Soil: Preparation and Manuring of—Planting—Pruning must be adapted to the peculiar mode of flowering—Mulching—To obtain Late bloom—Uses in Gardens—Grown as Festoons—as garniture for Rockeries or Ruins—as Wall Plants—as Standards for Lawns.

THESE groups represent some of the hardiest as well as some of the noblest of the whole family. The severest winters do not injure them in any material degree, and from their wonderful fertility of flowers, the plants in the late summer and autumn months literally become masses of blossoms, successively and continuously renewed. They may therefore claim to occupy one of the highest positions amongst hardy ornamental climbing shrubs.

In regard to soil, the same free, well-drained, deep, and well-enriched staple, which has been noted as suitable for the preceding groups, will be found equally adapted for these. A friable loam is the best soil they can have; if it is not so suitable as this in quality, it should at least be deep, that the roots may penetrate freely. A loamy soil is the best, because the plants must have manure liberally supplied to them, in order to keep up their strength; and in a loamy staple, the fertilizing properties of the manure are not liable to be dissipated, as they are in one which is poor and porous. When, however, the

soil approaches this latter description, it is all the more necessary for the plants that manure should be abundantly applied, to make good the natural deficiency in fertility. In the case of light soils, a good proportion of loam—made friable by frosts, if at all of a heavy or clayey character—should be incorporated, since this will render it the more holding; deep trenching should also be resorted to for the same purpose. In the case of heavy soils, they should be ameliorated by the free intermixture of calcareous soil, or of any sharp gritty materials which may be available, the drainage being made efficient, and the soil well aërated before planting.

When the ground has thus been prepared, the plants may be put out during any open weather which may occur between the middle of September and the end of April. After planting it is beneficial, though not absolutely necessary, to apply a mulching of a few inches of partially rotten manure on the surface; this will both serve to protect the newly-disturbed roots and also tend to fertilize the ground. The varieties of these types of *Clematis* are essentially out-door or border plants, since they require abundance of root space; they may, indeed, be grown into exhibition specimens, as will hereafter be explained, but even then they require a liberal supply of root accommodation, and high feeding.

To sum up this branch of our subject, the Viticella and Jackmanni types of *Clematis* require to be grown in rich deep soil, to be manured freely every season, and to be planted out in the open ground, that their roots may have free pasturage.

These forms of *Clematis* flower on the vigorous summer shoots, which culminate in floriferous ramifications forming dense masses of blossoms. The object, therefore, in pruning, should be that of favouring to the utmost, the development of these vigorous young shoots, and this is done by cutting the summer growth back early in the season, as soon as the frosts have disfigured the plants, say about November, to within about six inches of the soil. The mulching, which is then to be applied with a liberal hand, serves to prevent the soil becoming severely frost-bound, and should, about the middle or end of February, be neatly forked in along with, in some cases, an additional supply of rotten dung, the latter being regulated by the manurial qualities of the original mulching, and by the natural strength of the land. Thus treated, the plants will commence flowering about the first week in July, and they will go on yielding flowers as long as their strength will enable them to throw out lateral growths. To obtain a later bloom a portion of the plants should be left over at the November pruning, and not be cut back till the end of April, after they have commenced to grow. The process is, indeed, to some extent weakening, but by keeping the ground in good heart by copious manuring, the plants do not appear to suffer, but come into blossom about a month after those pruned in November, and thus help to prolong the blooming period to the limit assigned by the frost.

Though, as we have said, this winter mulching is beneficial, it is really more so as a source of food than of protection, for the plants are perfectly hardy, and will

thrive as well without it, provided they are otherwise fully fed. There is, however, doubtless some advantage accruing to the plants from preventing the frost striking deeply into the soil, especially in the case of those which are treated for the earliest crop of flowers. The important point is to take care, by liberal manuring, to keep up the strength of the plants—to make good, that is, the demands which have been made upon them by the marvellous annual development of flowers, a feature which is especially characteristic of most of the Woking hybrids. If, therefore, mulching should be inconvenient, a good dressing of rotten manure applied in November, when the plants are pruned, and turned in at once, will answer every purpose.

The uses to which these types of *Clematis* may be applied are exceedingly various. They may be trained up snaggy poles, either singly, or several together, to form pillar plants; or they may be allowed to scramble over masses of rockwork or rootwork—subjects which will be separately treated on. They may be festooned [as represented in Plate V.], or they may be trained over verandahs, or fastened to walls, or trelliswork, or led over ornamental iron supports as single standard specimens for lawns. In either way, and in every way, they are found to be thoroughly effective as flowering plants, many of them indeed, and especially those of the true Jackmanni type, being capable of producing a startling impression in consequence of the gorgeous masses in which their rich Tyrian hues are displayed. The *Florist and Pomologist* observes that:—

PLATE V.—CLEMATIS JACKMANNI.

AS A HARDY CLIMBER FOR FESTOONING

"As flower-garden plants, dotted here and there on the lawn, or forming an avenue in a more formal flower-garden, it is almost impossible to over-estimate the gorgeous effect which they are capable of producing and maintaining for a considerable portion of the summer and autumn months, the bloom being at its best about the middle of August. We have seen nothing more enchanting as a floral picture than that presented by a fine group of pillar plants. To bring out their best effect as 'pillars,' they should be grown in 'hills' like Hop plants, each hill being furnished with three stakes, standing some seven or eight feet above ground. The plants require annually to be cut down nearly to the base, in the early part of winter, and should be liberally manured; they cover the supports with their rapidly extending branches by the month of June, and then begin to branch out freely, so as literally to clothe the whole mass with a sheet of glowing purple. In this state there is no finer flowering plant for lawn decoration—no more gorgeous subject for garden avenues."

One of the most useful purposes to which these varieties of *Clematis* could be put would be to drape a mural ruin or to cover an unsightly bank or slope. They will grow in almost any situation if the soil is not absolutely deficient of food, or if the roots of other plants do not rob them of a fair supply of nutriment; and in such situations nothing would be required but to throw down a few tree-roots or rough branches for them to scramble over. Thus planted, a layer of manure worked in annually with the fork, and a supply of water in very dry weather, would secure a rich compensation of floral embellishment.

Again, they rank amongst the noblest of ornaments for low walls, trellises, &c., to which they must necessarily in the first instance be nailed or tied; but once firmly fixed, they should be allowed to fall down in rich picturesque masses. Probably, however, the simplest and grandest use that could be made of them would be to plant them on large masses of rockwork,

giving them a good depth of rich, light, and sandy earth, and allowing their shoots to fall over the face of the blocks without any training or pruning.

The late Mr. Neilson has pointed out (*Gard. Chron.*, 1870, 1410) how charming *C. Jackmanni* becomes, when grown on parasol-shaped trainers [Plate VI.], 5 ft. high, and ranged in line alternately with standard plants of *Acer Negundo variegatum* of the same height, and at the distance of their own height from each other, in front of an ivy-covered wall. The never-ending thousands of purple flowers of the *Clematis*, and the bright leafy splendour of the *Acer*, associated with the ivy background, forms a rich combination of flower and foliage, the beauty of which no words can express. When grown in this fashion, however, the *Clematis* should receive every encouragement, so that it may not in any way be checked in its development. This consideration suggests the desirableness of mentioning here, that if a dry July or August should set in, the plants must be freely watered, alternate waterings of liquid manure being not only very beneficial to their growth, but also conducive to increased size of flower and continuity of blossoming.

We shall here find, among the varieties of the Viticella and Jackmanni types, those kinds of *Clematis* which are especially adapted for bedding-out for summer and autumn flowering. This subject will, however, be treated on in a separate chapter.

PLATE VI.—CLEMATIS JACKMANNI.

TRAINED AS A STANDARD, FOR LAWNS.

CHAPTER VIII.

General Culture of the Non-climbing Types of Clematis—as Herbaceous Border Flowers—Training and Pruning of the Sub-shrubby kinds.

THE non-climbing species and varieties of *Clematis* consist of two small but distinct groups, the one herbaceous, the other sub-shrubby. The former, that is to say, the herbaceous species, thrive best in good rich deep loamy soil, and when they become well established, they form somewhat striking plants for the mixed border, though scarcely any of them fall into the very front rank of herbaceous perennials. The double-flowered varieties of *C. erecta* and *C. maritima* are the most ornamental, and are well worth introducing even into a select collection. These herbaceous species grow freely enough in any tolerably fertile garden soil, but it should be of good depth, as the roots are strong, and strike downwards. A free application of manure is beneficial to them, especially if the soil is not naturally of a fertile character.

The sub-shrubby varieties of the non-climbing group include some exceedingly ornamental plants. They are especially adapted for the back rows in mixed flower borders, where plants trained to a height of five to six feet would not be obtrusive; for prominent positions in the front part of shrubbery borders; or for dwarf standards on iron trainers in beds—whether of *Clematis* or of other plants. They

require a good preparation of the soil, which should be deep and rich, exactly as recommended for the varieties of the Jackmanni and lanuginosa groups. In spring, before growth recommences, the plants should be pruned back to the well-ripened wood at from one and a half to two feet from the ground, and a firm stake or support provided for each. To this support, as they grow, the young shoots require to be tied—an operation which is all the more necessary as they do not support themselves, like most other woody-stemmed species, by converting their leaf-stalks into tendrils. When the branches begin to ramify, which they do at a height of three to four feet, they may be allowed to fall down on all sides, and in this way they ultimately form a mass of flowers like a huge bouquet. *C. cærulea odorata* is a most desirable plant of this group, not only for its abundant well-contrasted blossoms, but also for their fine scent.

CHAPTER IX.

Special Culture of the Clematis for Conservatory or Indoor Decoration —Species requiring Greenhouse shelter—Stove species—Pot culture—Care of Summer shoots—Natural Blooming Season—Acceleration by Forcing—Planting-out against Pillars, &c.; in Glazed Corridors—Summary.

THE spring-flowering sections, represented by the varieties of the patens and florida types, furnish some of the finest of all climbers for furnishing the greenhouse and conservatory, the plants, though perfectly hardy in constitution, being specially adapted for these purposes, in consequence of their early-blooming habit. To these may be added the evergreen winter-blooming and somewhat less hardy *C. calycina* and *C. cirrhosa*, which, though pretty, can scarcely be called showy plants. There are, indeed, other ornamental species introduced, which require constantly the shelter of a greenhouse, not being hardy enough to withstand the rigours of our winters when exposed; these, however, are few in number, the most important of them being the *C. indivisa* and *C. indivisa lobata* of New Zealand, which bear flowers after the fashion of those of *C. montana*, and have besides ornamental evergreen foliage. The hothouse species are of still less importance, horticulturally speaking, the only one worth a passing note being the *C. smilacifolia* of India and Java, whose ample simple leaves are effective, but whose dark chocolate-

coloured flowers are quite eclipsed by those of many of the hardy types.

For conservatory decoration, we therefore conclude that the varieties of *C. patens* and *C. florida*, the latter represented by the variety known as *C. John Gould Veitch* [Plate VII.], are infinitely superior to the rest as objects of ornament, and therefore in our further remarks we shall keep these sections mainly in view. The plants may be grown as pot specimens with excellent results. They may also be planted out in the conservatory, where they are especially fitted for training up the pillars or over the trellising fixed for covering walls, provided the situation is not too much confined and shaded by the other occupants of the house. They are, doubtless, more appreciated when grown in these positions, or in glazed corridors, than when grown out-doors, for not only are these earlier flowers more highly prized than the later ones, but the blossoms themselves are occasionally liable to suffer injury should severe spring frosts occur during the time they are open. The plants themselves are, however, perfectly hardy, and are really good wall creepers, so that but for this limited risk to the flowers themselves, no better or more interesting subjects for such positions could possibly be selected.

For pot-culture, then—and supposing young plants are obtained to commence with—they should be shifted about March into larger-sized pots, using a rich loamy compost, and paying especial attention to drainage. If the plants are well rooted at the first, and in a healthy condition, the pots may be some two

PLATE VII.—CLEMATIS JOHN GOULD VEITCH.

or three sizes larger than those in which they have been wintered, as this bulk of good soil will induce a vigorous growth of the branches during the summer, and preclude the necessity for a second potting later in the season, which might not be beneficial. The plants should flower well if grown in 10-in. or 12-in. pots. The chief object should be to induce the development of a strong shoot or shoots, and to get this young growth well ripened by exposing it fully to light while it is progressing, and by so ordering the root-treatment, and the supply of water, as to bring about a cessation of active growth towards the end of the summer. Thus developed and matured, the shoots are prepared to give forth their lovely flowers at the proper time in the ensuing spring. While growing, the young shoots cannot be better placed than when fastened perpendicularly to a string or wire in the full sunlight, but these shoots should be trained into the form required while they are still dormant in winter or early spring, so that the young flowering growths may dispose themselves naturally before the blossoms expand. Cylindrical or balloon-shaped trellises are the most convenient and suitable for specimen plants of this character. Plants thus grown, and thus trained, form fine objects for home decoration, as well as admirable subjects for the earlier or spring exhibitions.

The natural period for the blossoming of these Japanese races of *Clematis*, in a cold house entirely without artificial heat, is about the end of April or the beginning of May; but by the aid of gentle heat they may be had in flower earlier. The temperature

should not, however, be allowed to range higher than from 45° to 55°, for if higher than the latter, the flowers will not be of their true or natural colour. To be in flower by the middle of March, the plants should be gently started by the middle of January; and to keep up a continuance of flowers a succession of plants should be brought into a warmer atmosphere at intervals of about three or four weeks.

As permanent decorations for the conservatory, the varieties of these types may be specially recommended. From their slender growth they are particularly suited for covering pillars in structures of this character, since they flower from the base to the summit; while for clothing the trellis-covered walls either of conservatories, greenhouses, or glazed corridors, few more eligible plants can be found, these early-blooming varieties being far better adapted than the later ones for indoor cultivation. Moreover, as these early sorts present a charming variety of colour, and blossom simultaneously, they can be intermixed with remarkably good effect.

The general features of the treatment recommended in Chapter IV., for sections 2 and 3, apply equally to the growth of the plants under glass. A rich light loamy soil, and an annual mulching to secure a renewed and vigorous summer growth, are equally required in both cases; while the pruning must consist in the removal of a portion of the old flowering wood, sufficient to give the plants a new start, in order that young flowering wood for the following season's bloom may be secured.

CHAPTER X.

Special Culture of the Clematis as a Wall Plant—Groups adapted for Walls—Early-blooming groups—Patens and Florida—Summary of their culture—Calycina and Montana—Summer and Autumn groups—Lanuginosa, Viticella, and Jackmanni—Summary of their Culture—Special pruning of Jackmanni type—Splendid example of Jackmanni at St. Boswell's.

AS a wall plant, the *Clematis* ranks high amongst those which may be selected on account of their decorative capabilities. In this capacity, moreover, it affords a choice of subjects adapted respectively for spring, for summer, and for autumn-flowering, the spring-flowering sorts belonging to the montana, the florida, and the patens types, while the most important of the summer and autumn-flowering ones are those of the lanuginosa, Viticella, and Jackmanni groups.

When grown on walls, whether covered or exposed, the plants of the early-flowering section are not liable to suffer injury from frost, being perfectly hardy, and flourishing even in exposed situations. The chief risk they incur, and which is but little, is that arising from the incidence of the morning sun upon them when a sharp late spring frost may have caught the expanded flowers. In any moderately sheltered position, however, this risk is but slight indeed, and the plants will grow freely, and flower satisfactorily, coming into blossom about the middle or end of May, and continuing to flower more or less abundantly, accord-

ing to the situation they occupy, up to the end of June or beginning of July. The general features of their treatment have been already described when treating of sections 2 and 3, which include the most showy of the early-blooming sorts, and may be summed up thus:—Deep rich light loamy soil; a liberal supply of manure at least annually; the free development and perfect maturation of the summer shoots; and the retaining these at as great length as possible when pruning in winter.

In very sheltered situations, some of the varieties of the montana group, notably *C. calycina*, may be had still earlier than the foregoing; while as a May bloomer, vigorous in growth, hardy in constitution, and most prolific of flowers, *C. montana* [Plate VIII.] —with its variety—is strongly to be recommended as a distinct type of the genus.

The summer and autumnal-flowering groups are gorgeous wall plants, and include not only the nobler forms bred from *C. lanuginosa*, but the floriferous, hybridized, and selected descendants of *C. Viticella*. They commence to put forth their inflorescence about July, and continue on till October or November, those of the former alliance in moderate abundance and at intervals, those of the latter in continuous profusion. The lanuginosa breed is, however, specially effective when thus grown, on account of the immense size to which the blossoms of many of the varieties attain, and which, facing outwards from a background of growth, are then displayed to the greatest possible advantage. They require in this position the most liberal feeding, and moderate

PLATE VIII.—CLEMATIS MONTANA.

pruning, the summer growths being carefully trained in to secure the successional flowers they produce.

The Viticella and Jackmanni varieties attract rather by the profusion than by the individual size of their flowers. These plants, while fed to the utmost in order to meet the excessive demand upon their powers, should be pruned hard back every autumn, unless a considerable space is intended to be covered, and the young shoots should be trained up to their full extent in the early part of the summer, until flowers begin to appear, when, as all the lateral growths develop flowers, it may be better to let them fall in graceful wreaths of pendent spray.

In illustration of the capabilities of the varieties of this latter type as decorative objects, we may quote the following interesting description of a specimen of *C. Jackmanni* growing in the garden of Lord Polwarth, Mertoun House, St. Boswell's, in Berwickshire. Mertoun House is in close proximity to the Tweed, within three miles of the St. Boswell's station, on the Waverley route to and about forty miles from Edinburgh. Mr. Fowler, Lord Polwarth's gardener, in a letter dated March, 1872, writes as follows:—

"The plant in question was planted five years ago, from a 4-in. pot, against a wall with an eastern exposure. As the garden walk passes close by the wall, and consequently over the roots, I had the ground well prepared at the outset. The natural soil being light, upon a gravelly bottom, I added a mixture of one-half heavy loam and one-half natural soil, with a considerable quantity of well-rotted manure, incorporating them well together, and beating down the whole before planting, to make the walk solid. In order to protect the tiny stem of the plant from injury, I had two short boards nailed together in the form of a V, and placed against the wall. The plant made several shoots, which were carefully nailed in as they grew. The only

attention it has required since has been the pruning-off of the old flower-stalks and leaf-stems, and the equal distribution of the branches. I have it now trained over a surface about 15 ft. square, and it is capable of covering a much larger space had it been at my disposal. I have never pruned off a single living bud, but as they burst into growth, have had them neatly tied in. Thus treated, they flower in wonderful profusion from early summer until late in autumn. At the beginning of last September, the flowers on this plant were counted, and the number then open was found to be 1,275, the grand effect of which can scarcely be imagined. The plant well deserves the popularity which it has gained, being perfectly hardy, easily managed, and unrivalled in colour and flowering properties by any climbing plant I know."

Mr. Fowler very judiciously advises, that in planting the now numerous and dissimilar varieties of *Clematis* for the ornamentation of wall surfaces, the operation should be performed with the view of allowing each plant, ultimately, to occupy a considerable space, as in this way only can its beauties be displayed to the fullest advantage. It may, moreover, be noticed as a peculiarity of Mr. Fowler's treatment, that he does not prune back his plants, nor, indeed, cut away any living buds, but trains in all the young shoots which are produced. That the results of this mode of treatment are satisfactory, the foregoing description of his specimen of *C. Jackmanni* abundantly testifies.

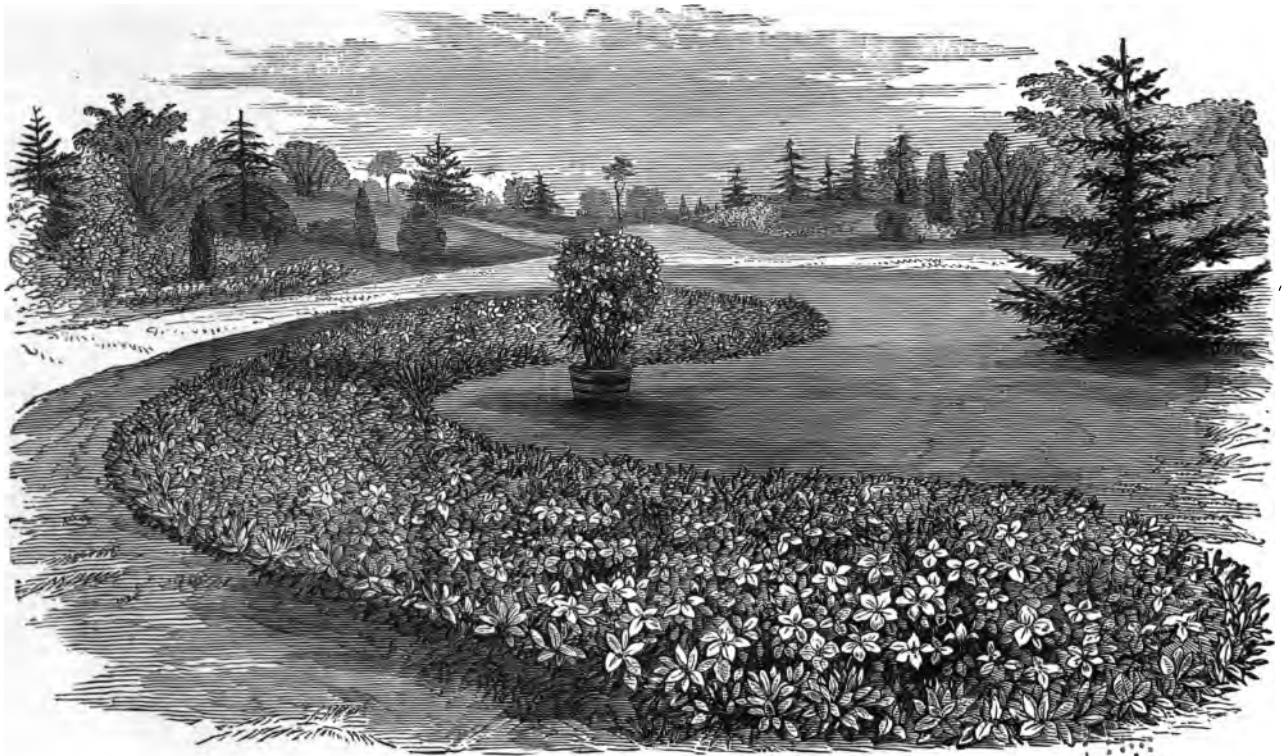

PLATE IX.—CLEMATIS JACKMANNI.

AS A PERMANENT BEDDING PLANT.

CHAPTER XI.

Special Culture of the Clematis as a Bedding plant—Origin of the idea—Permanence of character—Preparation of the Beds—Summer beds—Successional bloom—Soil and Planting—Winter furnishing of the beds—Training—Beds at Ribbesford—Continuity of flowering—Early-blooming bedding sorts—Special treatment of—Edging plants for Clematis beds—Standard plants for contrast—The Clematis as an edging to flower-beds.

THE employment of the *Clematis* as a bedding plant was first brought about in a kind of accidental way. It happened that some of the plants, in the plantation of hybridized seedlings from which *C. Jackmanni* and others were selected, were blown down during the early part of the summer, and the poles were not renewed. As the summer and autumn passed on, it was noticed that these plants spread out their branches over the surface of the ground, and flowered as profusely there as when elevated in the usual way. It was thence inferred, that, if pegged down like *Verbenas*, the varieties of *Clematis* would make good bedding plants, while they would have this advantage over ordinary bedding stock, that they would be permanent, flowering year after year, and that with increased vigour as they became more thoroughly established at the root. Experience proved that this inference was correct, and for some years the beds of *Clematis Jackmanni* and other hybrid varieties, to be seen at the Woking Nursery [Plate IX.], have been objects

of great beauty. The conditions were, perhaps, not the most promising, for the soil at Woking is of a light sandy character, and one which it might be supposed would not afford the plants sufficient nourishment, at least as permanent bedders; but the result has proved in every way most encouraging, the beds showing a mass of the richest blossom from July onward, till damaged by frosts.

These beds were prepared during the winter months by deep trenching: a liberal dressing of good rotten dung, and a lighter one of calcareous earth, being thoroughly incorporated with the soil. About the end of March the *Clematises* were planted out, each being headed down to within some six or eight good buds or about six inches of the base, in order to start the lower buds. As they grew, and before they became entangled, the young branches were pegged down over the surface, and at the natural season—July, they came freely into flower, and were the admiration of all who saw them. As in the case of plants grown in other ways, a later crop of flowers may be had by late pruning; that is, if the plants are pruned late, the profuse head of bloom will come in later, but in all instances when once they come into bloom, the flowering goes on in succession for an incredible period, all that is wanted being some inducement to continue forming new growth, such as a supply of water if the weather is dry, or of liquid manure, if the soil is exhausted. Let but growth be obtained, and flowers are certain to follow. This hint may be the more necessary, as when growers become more familiarized with the plants, the extra-

ordinary profuseness of flowers may lead to the neglect of the aids which the plants really require, and which they so thoroughly repay.

We recommend that when employed as a bedding plant, the *Clematis* should be permanently planted out, so that the roots may not be disturbed. The soil should be rich, open, and deep, of a calcareous loamy character if possible. If it be of a heavy texture it must be well drained and ameliorated by admixture of gritty matter, such as road-scrapings, the sand washed up by the road-side, burnt clay, or even ashes, in moderate quantities; an admixture of half-rotten leaf-mould would also be beneficial. If, on the contrary, it be light and dry, the soil should be strengthened by the admixture of good and rather heavy loam. Deep trenching and a liberal manuring should be resorted to before planting; and a thorough dressing of good sound manure should be forked in annually in November, when in ordinary cases, the summer growth may be cut back.

When the beds are left bare and bald throughout the winter, the effect during the dull portion of the year is not altogether sightly. In order to avoid this, we have employed, and we strongly recommend the introduction of, such hardy evergreens as small bushy plants of both the green-leaved and variegated varieties of *Aucuba japonica;* of *Berberis Aquifolium;* of Holly, both green and variegated; of Box, and dwarf Conifers; and of close bushy plants of common *Rhododendrons*, &c. These should be planted, or plunged in pots, between the permanent plants. Then, some time in March, earlier or later according to the season, this

temporary winter evergreen furnishing should be removed, so that it may not interfere with or prevent the timely training of the early spring growth of the *Clematises*. In this way the Clematis beds may be made to form part of a design for a winter garden of evergreens; or even an isolated bed, if thus filled in the winter, becomes changed from an eyesore into an object of interest and attractiveness.

The young plants of *Clematis*, when planted out, should be set at about two feet apart, so that they may cover the surface quickly. When they become strong and well established, a portion of them may be removed if desired, as from the more vigorous growth of established plants they will branch more freely and cover more quickly. The growing shoots should be looked to, at least once a week, and pegged down or trained where most required to cover the surface. They cling together so firmly by their clasping leaf-stalks that this should always be done before they get at all entangled, for the young shoots would be certain to suffer injury in the process of disentanglement. The plants should be raised by some means so as to give a convex surface to the bed, and thus the better to display their flowers. This may be done in a variety of ways, either by raising the surface of the bed itself to the desired shape, by pegging down a layer of twiggy branches, such as pea-sticks, for the plants to grow over, by fixing a common hooped trellis of rods to which the shoots should at the first be tied, or, what in many situations would be the best plan of all, but which would be scarcely admissible in a dressed parterre, by arranging root-

masses of suitable bulk on the surface of the beds for the plants to scramble over and amongst. Whatever plan may be adopted, the plants must be trained as already recommended till they have furnished the space to be covered, when they may be allowed to grow more at random.

As the plants do not throw up flowers from the lower portion of their stems, it is desirable in training them to cover the beds, that the points of one series of plants should be so arranged that they may overlap those portions of the adjoining ones which remain bare. This point should be borne in mind from the first and until the whole surface is evenly covered with flowering wood.

Mr. Westland, one of our best gardeners, and an undoubted authority on all questions relating to the furnishing of the flower-garden, records his experience and observations in these words (*Florist and Pomologist*, 1869):—

"In the garden of W. E. Essington, Esq., Ribbesford House, Bewdley, there are two magnificent and noteworthy beds, which, when I saw them (September 6th), were apparently in the height of blooming. It is difficult to imagine anything more strikingly beautiful than they were, or anything that could produce a more gorgeous effect. Being associated with the general arrangement of bedding plants, the superiority of the *Clematis* was very apparent, the purple bedders being altogether eclipsed by the masses of rich violet purple of *C. Jackmanni*, which is one of the best for bedding purposes. The beds were round, about fifteen feet in diameter, and well raised towards the centre. In the centre of one bed, which was planted in 1867, a few stakes about eight feet in height were placed, and these being well covered with the *Clematis*, formed a perfect floral pillar, which gave a good effect. The other bed, planted in November, 1868, was equally good. The plants were planted at about two feet apart, and were carefully trained. The idea is entertained by many that the blooming season of these plants is

not of sufficient duration to warrant their adoption for bedding purposes. In this doubt I frankly own to having been at one time a participator, having formed but a very vague idea of their capabilities, but I have learned that by judicious treatment the season of flowering may be so prolonged as to do away with any objection on that point."

It has already been intimated that continuity of flowering is dependent upon continuity of growth. Now this at once suggests summer-feeding. Thus in dry weather manure-water should be given alternately with pure water, the water not being applied over the leaves and flowers, but beneath them. It is to be recommended, if the summer is at all a dry one, to have the beds thoroughly saturated with pure water, just as the buds are being developed, and begin to acquire size; if this is done thoroughly it will increase the size of the flowers, and will carry the plants on for a considerable period. One or two such thorough waterings may be given subsequently, if the season is such as to require it, applying at least one dose of liquid manure when the plants have been flowering for a considerable period. No other attention is required till the frosts of November come, after which the plants may be pruned hard back.

It has been recommended to water beneath rather than over the flowers and leaves, but it is surprising, considering the size of the flowers, how well they withstand heavy rains and storms. Though necessarily affected to some extent, they show less damage than most of the ordinary bedding plants.

We have hitherto mainly referred to the summer and autumn-flowering varieties, but the bedding season of the *Clematis* may be commenced at an

earlier period, by the employment of *C. Standishii*, which is exceptionally hardy, and probably also by the use of some of the newer sorts bred from it, but which have not as yet, so far as we know, been tried. As regards their general treatment, the foregoing remarks apply to these also, but being of a more slender habit, they should be planted in rows at eighteen inches apart. These spring-blooming sorts commence and finish their flowering before the ordinary summer bedding begins, say the middle of May and June, but the effect at that early part of the season is most pleasing. As they flower from the old wood, it becomes necessary with them to train the young shoots so that they may be exposed to light and air and become thoroughly ripened, but this would not interfere with the growth of other dwarf summer bedders, as the branches of the *Clematises*, if neatly trained in lines, or as a border, at about the level of the plant used with them, would not be unsightly; or the Clematis shoots could be trained as a carpet over the beds, and flowering plants in pots plunged at intervals between them, but not so closely as to interfere with their maturation. We can especially recommend *C. Standishii* for this purpose. In certain cases, after becoming well established in a bed, we have known *C. Standishii* to push with so much vigour just before the flowering time as to make it advantageous to cut off the young growth in order to show up the flowers. When this has occurred, we have found that the later summer shoots were quite sufficient to furnish the bed with flowering wood for the following season.

Though, as we have just stated, the spring-blooming varieties of *Clematis* may be advantageously made use of whenever it is desired to have a flowering-bed in May or June before the ordinary bedding plants come in, yet we wish it to be understood that, from many points of view, the summer and autumn flowering hybrids, of which *C. Jackmanni* is the type, are the most suitable for bedding out, especially by reason of their habit of profuse and continuous flowering.

We have as yet only referred to the principal furnishing of the beds, either for spring or summer flowering, but in practice it is found that when *Clematis* beds are formed on grass, an edging of some kind, which may intervene between the deep rich hue of the *Clematis* and the green of the turf, is desirable. Plants with white or yellowish, or at least light-coloured foliage, seem to be most effective for this purpose. We have used the hoary *Stachys lanata*, the flowering stems being cut off as soon as they appear; but the habit of this plant, otherwise appropriate enough, is rather too flat to be fully effective. A better habit is that afforded by *Lonicera aureo-reticulata*, when kept closely pruned, and the colour of this plant also forms a pleasing combination with its surroundings. The dwarf-growing variegated-leaved *Euonymus radicans*, the golden reticulately-marked *Vinca elegantissima*, and the neat *Buxus argentea nova*, are all useful plants, well adapted for edging the beds of *Clematis*, and very effective if kept closely pruned, and thus prevented from acquiring too much height. *Cineraria maritima*, a free-growing, white-leaved plant with finely-cut leaves, as well as some of its modern

varieties, would be very suitable if kept constantly stopped back. The hoary *Senecio argentea*, *Achillea Clavennæ*, *Artemisia Stelleriana*, and *Santolina incana*, again, might be advantageously selected, or the *Centaurea ragusina* or *C. gymnocarpa*, if kept from flowering. In fact, any hardy free-growing dwarfish subjects of which the leaves or sprigs stand erect, and afford a pleasing contrast in colour, would, provided they were kept within due bounds by the timely use of the knife or pruning-scissors, be found efficient as edging plants.

Mr. Fleming has recommended the introduction, here and there, in *Clematis* beds, of an upright or standard plant for the sake of affording variety of outline, and he suggests planting *Clematis Flammula* for this purpose. If kept symmetrically trained to a dome-like head, some four or five feet high, as it may be, or if trained up in a pyramidal form and then allowed to drop down fountain-like, it would have a very good effect in large beds of the purple varieties; as would the equally fragrant *C. cœrulea odorata* planted in a bed of any of the pale-coloured kinds.

Where basket-like edgings are adopted for beds in the flower-garden, the *Clematis* might be usefully introduced as an edging plant, either as a supplement to the edgings of ivy now sometimes used, or alone. When properly cared for, the summer-flowering hybrid varieties of *Clematis* make from ten to fifteen feet of growth in a season.

CHAPTER XII.

Special Culture of the Clematis as a Pillar plant—Preparation of the soil—Staking—Summer as well as Winter Feeding necessary—The Climbery or Clematis Garden.

FOR Pillar plants we recommend the varieties of the true *C. Jackmanni* type—hardy, free-flowering, and continuous-blooming—varieties which become, as it were, bathed in beauty from the extraordinary profusion in which their blossoms are produced. The accompanying illustration [Plate X.] prepared from a photograph gives some idea of this. Such pillars of purple are amongst the most resplendent objects of summer floral beauty which can be dotted about the flower garden or pleasure-ground.

When the spot has been chosen, on which to rear this floral monument, the ground should be deeply dug or trenched, good hearty manure in considerable quantities, and if possible a portion of chalky soil, being well intermixed. Deep soil and thorough drainage are greatly conducive to a successful issue. The plants being perfectly hardy, may be planted out during any open weather between September and April, and will be all the better if mulched, not merely to afford shelter to the newly embedded roots, but also to furnish, as the rains descend, by continuous infiltration, a supply of congenial food, which may result in free rapid growth. Before starting, the plants should be cut back to within a few buds of their base

PLATE X.—CLEMATIS JACKMANNI.

AS A PILLAR PLANT.

—say within from 4 in. to 6 in. of the ground—and then all is ready for the spring growth. At some convenient time after planting, and before the necessity for training has arisen, the poles should be placed about the plants. The manner of doing this may be according to taste. A single snaggy pole, well provided with short lateral branches, may be inserted, and the plant trained about this, or three or four poles may be set in so as to form a pyramid, should this style be preferred; but that which is best suited to the habit and character of the plants is to set three or four poles erect at a little distance apart, much as hop-poles are set up, and to train the plants over and about them. The advantage of the open form consists in this: that the tendency of the plants being to ramify excessively at the top—this in fact being the secret of their enormous blooming power, every lateral break bringing blossom—the openly-set poles afford space where it is most needed, namely, at the top; and if the vigour of the plant is such that even this provision does not meet its requirements, the lateral growths may then be allowed to fall down in rich masses, putting forth their brilliant blossoms till frosts arrest further development.

This continuous outburst of flowers is, as will be evident, dependent on continuous growth, and hence the plants must not be neglected, nor left to nature for the supplies necessary to them. The winter manuring is good, very good, for them, and helps forward a vigorous burst of growth in spring; but when the strain upon the powers of the plants is greatest, from the profuse inflorescence with which the cultivator

is rewarded, it is well to bear in mind, that in dry periods thorough soakings of water are immensely beneficial, and that even one or two good doses of liquid manure, at the time the buds are forming, will materially aid in increasing the size of the blossoms when they come to expand, and also be of great assistance to the plants.

While on the subject of Pillar plants, we may suggest that a Climbery, as it might be called, that is, a garden of *Clematises*, with or without other associated climbers, would form a most striking episode in pleasure-ground or flower-garden scenery. Imagine a group of a dozen varieties of the Jackmanni type of *Clematis*, set down at from 6 ft. to 10 ft. apart, and treated as pillar plants, a few of the white or light-coloured varieties of the lanuginosa type being intermixed with them; or if further admixture were thought desirable, with some of the elegant-foliaged climbers, as the Hop, or Virginian-creeper, or American Vines, introduced as greenery—perhaps other shrubby subjects also, such as Climbing Roses, for variety, and such flowering annuals as the Canary-creeper *(Tropæolum aduncum)*, the crimson Nasturtium *(Tropæolum majus var.)*, or the rosy-coloured forms of Convolvulus major *(Pharbitis hispida var.)*, for contrast of colour—all being trained on poles or pillars. This picture realised, would present, during the summer and autumn months, one of the most gorgeous floral scenes to be found in the whole range of the garden, and one which, once seen, would never be forgotten.

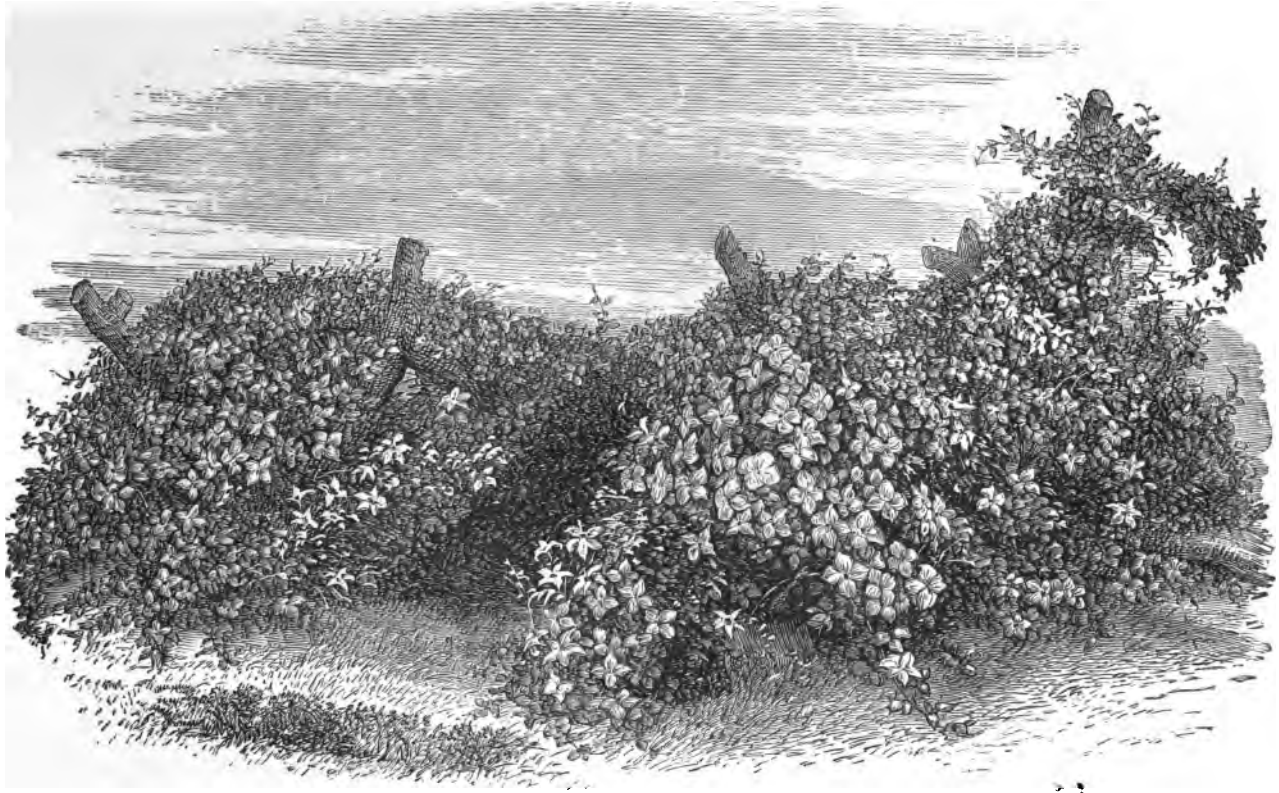

PLATE XI.—CLEMATIS JACKMANNI.

AS A ROCKWORK OR ROOTWORK PLANT.

CHAPTER XIII.

Special Culture of the Clematis on Rockwork and Root-work—about Ruins—in Wilderness scenery—on the Stumps of Trees—Preparation of the soil—Pruning—Training.

IT would seem, from the many ways in which the free-flowering summer and autumn groups of *Clematis* may be fitly introduced into garden scenery, that an inappropriate position could scarcely be found. At home in dressed ground, as bedding-plants, as pillar-plants, as umbrella-plants, as single specimens or in masses, they are no less at home in wilderness scenery, about Ruins or Rockwork, or amongst those grotesque arrangements of old tree-stumps to which the term Rootery is commonly applied. In fact, the bed, the pillar, the wall, the rock, or whatever it may be, is merely the skeleton or foundation on which the glorious blossoms of the *Clematis* are to be displayed. Viewed in this light, the Rootery [Plate XI.] is one of the most appropriate of all places into which to introduce these splendid plants, inasmuch as its picturesque irregularities—its trunks and arms—just serve as supporters of the gorgeous purple vestments of Queen *Clematis*, and become, so to speak, the train-bearers, who spread them out in all their rich exuberance and amplitude before the gaze of her admiring and astonished devotees.

The details of culture under this head, are much the same as those noticed in the chapter on Pillar

plants. A deep rich soil must be provided, and this will, in the present case, be facilitated by the inducement there may be to throw up irregular mounds, on which to arrange, picturesquely or grotesquely, as taste may direct, the stumps or stony masses which are to give name to the spot. The same necessity will exist, in both cases, for ample feeding—the annual manuring, and the summer liquid ministration. The same general rule as to close pruning must also be followed, unless indeed the rootery requires more filling up, in which case it may be desirable to leave the whole of the matured bine of the previous season, until the plants are sufficiently extended to entirely cover the prescribed space with their annual growth. In regard to training, all that will usually be required will be to lead the young shoots, during their spring and early summer growth, as evenly as possible, over the masses of roots—or rocks if planted on a rockery—leaving them afterwards to fill out the picture in their own natural way. The result, unshackled by formality, will certainly not be the least pleasing of those realized in the several departments of the garden to which the *Clematis* may be introduced.

CHAPTER XIV.

Special Culture of the Clematis as an Exhibition plant—Materials for Spring shows—Early blooms to be gently forced—General treatment—Soil—Materials for Summer shows—No forcing—Open-air culture: desirable soil and general treatment—To be well-established before flowering—Training—Employment as Terrace plants.

THE *Clematis* promises to become one of the most telling of exhibition plants, at two different periods of the year, the species and varieties of the patens and florida types furnishing excellent materials for the spring shows—about April and May; while those of the Viticella and Jackmanni types especially, as well as some of the lanuginosa strain, come in at a season which renders them particularly acceptable for shows held during the late summer months.

The spring-flowering sorts, cultivated for the early shows, may be grown in 10-in. or 12-in. pots, in a rich loamy soil. In pots of this size, the plants should sufficiently furnish cylindrical trellises of about 2 ft. high and 1 ft. 6 in. across. They flower from the well-ripened wood of the previous year's formation, and hence a supply of this wood must be kept up annually, by encouraging a free growth after the flowering season is past. The general treatment recommended for conservatory plants may be followed out with these also, the earlier plants requiring gentle forcing. During the summer months, when free growth is desired, it is advantageous to plunge the

pots into some porous medium, as old tan, ashes, or cocoa-nut refuse, and also to mulch the surface of the soil in the pots with half-rotten dung. For show purposes, the flowers should be perfected under glass, or at least under a sunny south wall.

A somewhat different treatment is required by the summer-flowering sorts. The plants, in fact, require to be kept as nearly as possible as if they were growing in the open garden. The limitation of root-space is probably the greatest source of failure with them, since it seems next to impossible to get them so finely developed in pots or tubs as they are when growing in the open ground. They require very ample root-space, and are, therefore, best grown in tubs, which are more convenient and manageable than very large pots. The plants may be formed by shifting on young plants till they acquire specimen size. Or, established plants may be taken up out of the border and put into tubs; but this should not be done in the same season as that in which they are required for exhibition, for the disturbance of the roots would prevent a successful issue. They should be established in the tubs the previous season, and during that in which they are to be shown should be kept in vigour by means of mulching, and by feeding with manure-water.

Beyond this, the cultivation of the *Clematis* for summer exhibition purposes offers no difficulties. Good vigorous plants are to be potted up, in rich light loamy soil, in well-drained tubs of convenient size. They must be pruned down rather closely in the first, and in each succeeding year, while to favour the free and

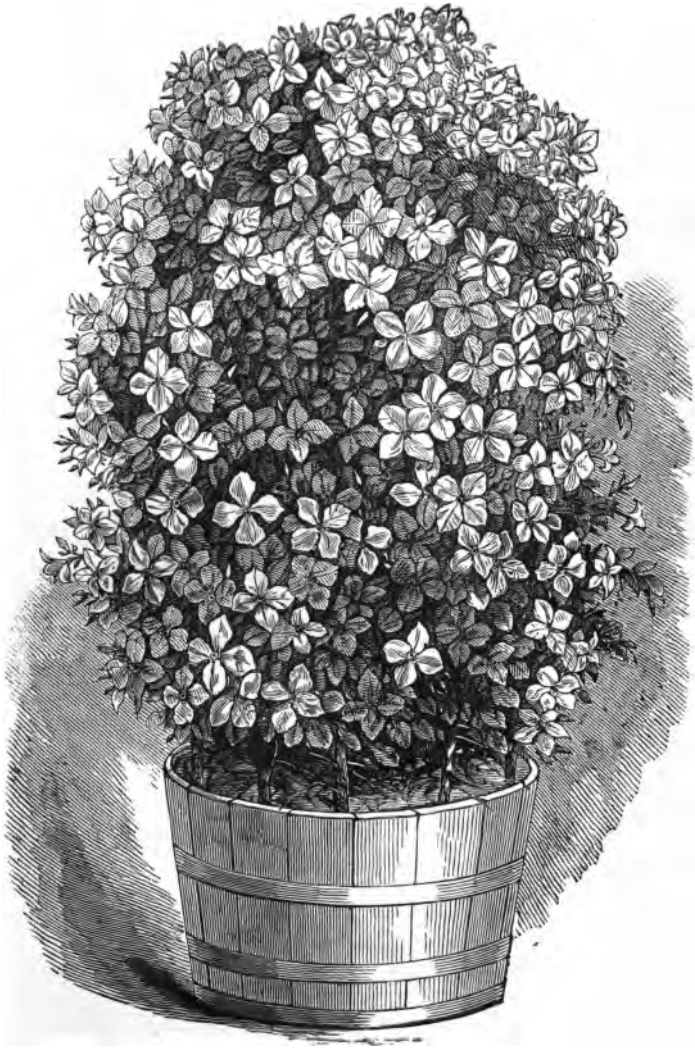

PLATE XII.—CLEMATIS JACKMANNI,
AS AN EXHIBITION PLANT.

healthy growth of the branches during the summer, a judicious use of stimulants must be resorted to—top-dressing or liquid-manuring, as may best suit each individual case, being the means employed.

Specimens of the summer-flowering varieties grown in tubs of about 2 ft. across by 1 ft. 6 in. deep, should cover a cylindrical trellis 4 ft. in height and 2 ft. 6 in. across, and at the usual season should throw a mass of flowers: of which Plate XII. gives a fair illustration. These, however, will not bear shutting up or forcing, or even at that season to be placed under glass, since it spoils the colours, but they are to be flowered in the full sunlight. The only mode of accelerating their flowering season, should they be likely to be rather behind the time at which they are required, is by submitting them to sun-heat in the open air, under shelter of a south wall.

Specimens grown in this manner are not only very suitable objects for spring and summer exhibitions, according to the varieties selected, but they also make admirable objects for placing in prominent positions, such as on terraces or open spots in flower gardens. The late summer varieties are not, however, suitable plants for shady positions.

CHAPTER XV.

The Certificated Varieties of Clematis—Certificated at the Metropolitan Shows in 1862—in 1863—in 1864—in 1865—in 1866—in 1867—in 1868—in 1869—in 1870.

A LIST of the names of the varieties of this now popular flower, which have successfully passed the ordeal of criticism by a tribunal of floral experts, will be a record not devoid of general interest, and will be a useful guide to the cultivator as to the merits of some, at least, of the many varieties which are offered for sale.

The meetings and exhibitions of the Royal Horticultural Society furnish the chief occasions on which floral criticism is systematically carried out by a well-organized body of men, learned in the laws which regulate the determination of merit amongst new flowers; and the decisions of the Floral Committee of that Society are consequently looked upon by the generality of Horticulturists as safe and satisfactory tests of merit. It may, however, be explained, in reference to the absence of awards during 1871, that the Committee suddenly decided, without notice, not to grant certificates to cut blooms as it previously had done, and as was quite legitimate with all the summer-flowering sorts, since they are always grown in the open ground; consequently all the recent batch raised at Woking, including, as we believe, several highly-meritorious sorts, having

to be potted up and established, were thrown out for at least a couple of seasons. On searching the records of this Committee, we find that the awards made by it to new varieties of *Clematis* have been as follows:—

1862.	*Variety.*	*Exhibitor.*	*Certificate.*
April 22 ...	C. reginæ	Anderson-Henry...	Second-class.
1863.			
May 5 ...	C. Fortunei.....	Standish	First-class.
May 5 ...	C. Standishii	Standish	First-class.
Aug. 4 ...	C. Jackmanni.....	Jackman.....	First-class.
Aug. 4 ...	C. rubro-violacea	Jackman.....	First-class.
1864.			
July 6 ...	C. Viticella pallida	Jackman.....	Second-class.*
July 6 ...	C. Viticella Mooreana	Jackman.....	Commendation.*
July 6 ...	C. Viticella amethystina	Jackman.....	Commendation.*
1865.			
June 27 ...	C. Prince of Wales.....	Jackman.....	First-class.
June 27 ...	C. rubella	Jackman.....	First-class.
1866.			
June 14 ...	C. velutina purpurea.....	Jackman.....	First-class.
Aug. 21 ...	C. Lady C. Nevill	Cripps	First-class.
Aug. 21 ...	C. tunbridgensis.....	Cripps	First-class.
1867.			
Aug. 6 ...	C. Lady Bovill	Jackman.....	First-class.
Aug. 6 ...	C. Mrs. James Bateman	Jackman.....	First-class.
Aug. 6 ...	C. Thomas Moore	Jackman.....	First-class.
Oct. 1 ...	C. Madame Van Houtte	Cripps	First-class.
Oct. 1 ...	C. Marie Lefebvre	Cripps	First-class.
Oct. 1 ...	C. Sensation	Cripps	First-class.
Oct. 1 ...	C. Star of India	Cripps	First-class.
1868.			
April 21 ...	C. John Gould Veitch	Veitch.....	First-class.
July 7 ...	C. Beauty of Surrey	Jackman.....	First-class.
July 7 ...	C. Sir Robert Napier	Jackman.....	First-class.
July 7 ...	C. Viticella rubra grandiflora...	Jackman.....	First-class.
1869.			
May 4 ...	C. Albert Victor.....	Noble	First-class.
May 4 ...	C. Miss Bateman	Noble	First-class.
May 18 ...	C. Lady Londesborough	Noble	First-class.
June 15 ...	C. Excelsior	Cripps.....	First-class.
1870.			
May 4 ...	C. Lord Londesborough	Noble	First-class.
June 8 ...	C. Sylph	Cripps.....	First-class.
Aug. 17 ...	C. Gem	Baker	First-class.
Aug. 17 ...	C. Victoria	Cripps.....	First-class.

* None of the varieties raised at Woking which have not obtained First-class Certificates have been distributed.

CHAPTER XVI.

Hints on Hybridizing the Clematis—the Process—Preparation of the Mother-plant—Precautions—Manipulation of the Pollen-parent—Best Time for operating—Time required for perfecting the Seed—Gathering and Sowing—Time required for Germination—Selection of Subjects.

WE propose in this chapter to give a few general hints as to the *modus operandi* of hybridizing the *Clematis*. The process of hybridization consists simply in applying the pollen emitted by the anthers of one flower, to the matured or viscid stigmas of a different flower, with a view to the production of a plant intermediate in character between the two parents. As, however, the flowers of different races of plants are very different in structure, it is found in practice, that this object is more readily and certainly effected in some plants, than in others. We propose to give the results of our experience as to the manipulation necessary in this particular family.

In the first place, having decided on the cross to be effected, the flower of the intended mother or female parent, to be operated on, must have its own anthers removed at an early stage of expansion before the pollen is protruded, by clipping them off with a pair of small sharp-pointed scissors. This requires to be done in order to prevent the native pollen, which is always more efficacious than foreign, from coming in contact

with the stigmas, and so interfering with or anticipating the intended cross.

After removing the anthers it is necessary to closely scrutinize, by the help of a small pocket lens or magnifying-glass, the stigmas of the flowers to be operated upon, in order to discover if any native pollen has been accidentally shed upon them. If so, it may possibly be removed by blowing; but if not, another flower must be selected. If the viscid surface of the stigmas is found to be quite free from any such extraneous matter, apply the anthers of the father or pollen-parent to the stigmas of the emasculated blossoms, by slightly brushing the one over the other, so as to leave a portion of the pollen on the stigmas of the receptive flower. The anthers may be held during the operation by means of a pair of tweezers, or the pollen may be collected on a camels'-hair brush, and so applied. The magnifying-glass may then again be usefully brought into requisition, in order to discover whether the pollen has been actually deposited on the stigmas, so that fertilization may be likely to take place.

If the operation has to be performed in the open air, the forenoon of a bright day should be chosen for the purpose, since it will allow a few hours to intervene, in which the tubes from the pollen-grains may commence traversing the styles on their way to the ovaries, before the chilling night dews or frosts come on. The stigmas form the tuft of silky bodies in the very centre of the flower, while the anthers are the thread-like bodies which spread out like a ray around them; both are clearly shown in the

coloured figures of Plates I. and II. Once fertilized, all that is necessary is to keep the plants in health, and to guard against risk of injury or other casualties, so that the crop of seeds may continue to progress till it is ripened and secured.

In the course of from three to five months from the time of hybridizing, during which first an increase in size, and subsequently a change in colour will have been observed, the seed will have become sufficiently ripened for gathering. It should be sown at once, or else kept till the early spring, the former being the preferable plan. *Clematis* seeds do not, as a rule, germinate in less time than from six to nine months, and often not till the following year; though there are exceptions, as we have had new seeds of *C. orientalis* germinate in a week from the time of sowing, the seeds, however, in that case, having been only partially ripened. It will thus be obvious that the non-appearance of seedlings for a while after sowing, must not be regarded as discouraging, nor should the pots or pans in which they are sown be thrown away too hastily, since a period of eighteen months may possibly elapse, in certain cases, before germination takes place.

The selection of subjects for crossing must be left to the judgment of the hybridist, since as the objects would be varied, so also must be the means adopted for their realization. The facts we have recorded, may assist in drawing conclusions as to the effects to be anticipated from particular crosses; but the subject must be made a matter of personal study if any novel or startling result is to be attained.

CHAPTER XVII.

Classified List of the Hardy Species and varieties of Clematis—§ 1 Montana type—§ 2 Patens type—§ 3 Florida type—§ 4 Graveolens type—§ 5 Lanuginosa type—§ 6 Viticella type—§ 7 Jackmanni type —§ 8 Cœrulea odorata type—§ 9 Erecta type.

WE devote this chapter to setting out a classified list of the species and varieties of *Clematis*, of which descriptions will be found in the chapter which follows. The sections adopted, as already explained, are not intended to indicate the botanical affinities of the plants, though to some extent they do so, but rather to bring together the various forms in groups which may serve as a clue to their treatment; and may serve, moreover, as an indication of the season, and its duration, at which the different plants may be expected to flower, as well as of the manner—profuse or scattered—in which the flowers are put forth. We have included all the modern hybrid varieties of which we have any information, and have introduced all the hardy species, worth cultivating, which have found their way into garden catalogues, omitting such only as appear to be obsolete names, not now having living representatives. In this place we have given only abbreviated memoranda of the colours of the flowers, and an intimation of the flowering season, leaving the more full description for the next chapter, wherein the varieties are arranged in alphabetical order, to facilitate refer-

ence. Those which fall under the different sections are as follows:—

§ 1. Montana Type.

Climbing Winter and Spring-bloomers, with medium-sized flowers, in aggregated axillary clusters on the old or ripened wood.

C. barbellata..... chocolate-purple .....May.
C. calycina..... greenish white, spotted .....Jan., Feb.
C. cirrhosa..... greenish white .....Dec., Jan.
C. montana..... white, wood-anemone-like .....May.
C. montana grandiflora... white, larger and more expanded .....May.

§ 2. Patens Type.

Climbing large-flowered Spring-bloomers, flowering from the old or ripened wood.

C. Albert Victor .....deep lavender, with pale bar .....May,* July.
C. Amalia .....light bluish lilac.....May, June.
C. atropurpurea..... violet-blue, poor .....May, June.
C. Calypso..... azure-blue .....May, June.
C. candidissima plena..... double white, loose.....June, July.
C. Clara.....violet-red, passing to blue .....May, June.
C. Countess of Lovelace...bluish lilac, deep lilac central rosette ...May, July.
C. Duke of Buccleuch.....pure mauve.....May, June.
C. Edith Jackman... blush-white with wine-red bar, scented .....May, July.
C. Estelle Russell.....white.....May, June.
C. Fair Rosamond... blush-white, with wine-red bar, very sweet ...May, July.
C. florida pallida..... flesh-colour .....May, June.
C. florida violacea.....marbled violet.....May, June.
C. George Cubitt..... pale lilac-mauve, with darker spot .....May, July.
C. grandiflora mutabilis.....violet.....May, June.
C. Helena..... pure white, with straw-coloured anthers .....May, June.
C. imperialis..... sky-blue .....May, June.
C. insignis.....soft violet-blue.....May, June.
C. Lady Emma Talbot.....white, with mauve edge.....May, June.
C. Lady Londesborough... silver-gray, with pale bar.....May, July.
C. Lord Derby..... pale bluish mauve, very full outline.....May, July.
C. Lord Henry Lennox.....mauve.....May, July.
C. Lord Londesborough...deep mauve, with purplish red bars.....May, July.
C. Lord Mayo.....deep rosy lilac, with darker spot, scented .....May, July.
C. Lord Napier.....deep mauve, with pale bar .....May, July.
C. Louisa.....white, with violet anthers.....May, June.
C. Louisa plena.....double, white .....May, June.

* The varieties in this section commence flowering naturally about the middle or end of May, and continue till the end of June or beginning of July.

C. LUCIE..... violet-purple, flushed with carmine .....May, June.
C. LULONI.....May, June.
C. MADAME ISIDORE SALLES...white, with pale rose margin.....May, June.
C. MAIDEN'S BLUSH... blush-white, with rosy base to bar, scented ...May, July.
C. MARIE..... rich purplish blue .....May, June.
C. MISS BATEMAN..... white, with chocolate-red anthers.....May, July.
C. MONSTROSA..... semidouble, white .....June, July.
C. MRS. HOWARD VYSE.....white, with mauve edge.....May, July.
C. MRS. VILLIERS LISTER...white, with rosy lilac base to bar.....May, July.
C. PATENS..... delicate mauve-lilac .....May, June.
C. PATENS AMETHYSTINA PLENA...double, French white.....May, June.
C. PATENS FLORIBUNDA .....French white .....June, July.
C. PATENS VIOLACEA..... purplish-lilac .....May, June.
C. PRINCESS MARY.....pale pink, with light bars .....May, July.
C. QUEEN GUINEVERE..... creamy white .....May, June.
C. RENDATLERII..... pure white, with yellow anthers .....May, June.
C. SOPHIA.....deep lilac-purple, with greenish bars.....May, June.
C. SOPHIA PLENA..... double, lilac-purple .....May, June.
C. STANDISHII.....light mauve.....May, June.
C. STELLA..... pale violet, with plum-red bars, scented .....May, July.
C. SYLPH.....white, flushed with mauve.....May, June.
C. THE QUEEN..... delicate mauve, lanuginosa-like, scented .....May, July.
C. VERSCHAFFELTII..... pale blue, with deeper border.....May, June.
C. VESTA..... white, with dark purple anthers, scented .....May, July.
C. VICTOR LEMOINE.....blue, tinged with violet.....May, June.
C. VIOLACEA (Spae) ..... greenish straw, with dull red bars.....May, June.

§ 3. FLORIDA TYPE.

Climbing large-flowered Summer-bloomers, flowering from the old or ripened wood.

C. FLORIDA..... creamy white .....July, Sept.
C. FLORIDA PLENA..... creamy white, double .....July, Sept.
C. FORTUNEI.....rosette-formed, creamy white .....June, July.
C. JOHN GOULD VEITCH... rosette-formed, lavender-blue .....June, July.
C. LUCIE LEMOINE...white, rosette-formed, pale yellow anthers .....June, ——.
C. SIEBOLDII..... creamy white, with purple rosette .....July, Sept.

C. UNIQUE..... pale yellowish green, with deep chocolate anthers...June, ——.

§ 4. GRAVEOLENS TYPE.

Climbing small-flowered late Summer-bloomers, flowering (often in panicles) from axillary growths of the much-branched leafy young or summer wood.

C. CAMPANIFLORA..... white, tinted with purple .....June, July.
C. FUSCA..... brownish purple .....July, Aug.
C. GRAHAMI..... pale green .....Aug., Sept.
C. GRATA..... white, fragrant .....Aug., Sept.

C. GRAVEOLENS.....pale yellow, heavy-scented .....Aug., Sept.
C. ORIENTALIS..... yellow .....Aug., Sept.
C. VIORNA.....purplish outside.....July, Sept.
C. VIRGINIANA.....greenish white, fragrant .....July, Aug.
C. VITALBA..... greenish white, almond-scented .....July, Sept.

§ 5. LANUGINOSA TYPE.

Climbing large-flowered Summer and Autumn-bloomers, flowering successionally on short lateral summer shoots, the flowers dispersed.

C. ADELINA PATTI..... pure white, with dark anthers .....July, Oct.
C. ANNIE WOOD..... white, buff anthers .....July, Oct.
C. AURELIANI..... porcelain-blue .....June, Oct.
C. BEAUTY OF THE BOWER... white, tinted with blue .....July, Oct.
C. BEAUTY OF SURREY..... light grayish blue .....July, Oct.
C. BELLE D'ORLEANS... purple-violet, passing to violet-blue .....June, Oct.
C. CANDIDISSIMA GRANDIFLORA..... white .....July, Oct.
C. CAPTIVATION.....pale lavender, with bluish bar .....July, Oct.
C. CRIPPSII..... deep bluish mauve .....July, Oct.
C. EXCELSIOR..... violet-purple .....July, Oct.
C. FORGET-ME-NOT..... silvery lavender, with bluish bar .....July, Oct.
C. GEM..... deep lavender-blue .....June, Oct.
C. GLOIRE DE ST. JULIEN..... French white .....July, Oct.
C. GLORIA MUNDI..... white, tinted with lilac .....July, Oct.
C. GUIDING STAR..... lavender, with deeper veins .....July, Oct.
C. HENRYI.....creamy white.....Aug., Nov.
C. HYBRIDA FULGENS..... rich dark mulberry .....July, Oct.
C. IMPERATRICE EUGENIE.....pure white .....July, Oct.
C. JEANNE D'ARC..... grayish white .....July, Oct.
C. LADY CAMDEN..... white, tinted with lilac .....July, Oct.
C. LADY CAROLINE NEVILL...French white, with mauve bars.....July, Oct.
C. LADY MARIA MEADE... French white, with lilac bars .....July, Oct.
C. LANUGINOSA..... pale lavender .....July, Oct.
C. LANUGINOSA CANDIDA..... white, tinted .....July, Oct.
C. LANUGINOSA NIVEA..... white, pure .....July, Oct.
C. LANUGINOSA PALLIDA... ..... very pale lavender .....July, Oct.
C. LAWSONIANA..... rosy purple, veined .....Aug., Nov.
C. MADAME VAN HOUTTE..... French white .....July, Oct.
C. MARIE LEFEBVRE..... pale lilac .....July, Oct.
C. MRS. NASMYTH..... pure white, with yellow anthers .....July, Oct.
C. ORNATA..... violet .....July, Oct.
C. OTTO FROEBEL..... grayish white, very large .....July, Oct.
C. PERFECTA..... white, tinted .....July, Oct.
C. PULCHERRIMA.....white, with pale lavender bar .....July, Oct.
C. REGINÆ..... lavender-blue .....July, Oct.
C. SENSATION..... pale grayish blue .....July, Oct.
C. SIR R. NAPIER..... deep rich purple .....July, Sept.

C. SYMSIANA..... pale mauve .....Aug., Nov.
C. VAN HOUTTEI.....French white.....July, Oct.
C. VICTORIA..... deep reddish mauve .....July, Oct.

C. BARONESS BURDETT COUTTS...Solferino-pink, with creamy bar.....June, ——.

§ 6. VITICELLA TYPE.

Climbing large-flowered Summer and Autumn-bloomers, flowering successionally in profuse masses, on summer shoots (less continuously than in § 7).

C. ÆTHUSIFOLIA..... yellowish white, bell-shaped .....Aug., Sept.
C. CRISPA..... pinkish white, bell-shaped .....July, Sept.
C. CYLINDRICA..... deep lilac, bell-shaped .....July, Sept.
C. FRANCOFURTENSIS..... deep purplish blue .....July, Oct.
C. GUASCOI.....purplish violet.....June, Sept.
C. HENDERSONI..... bluish purple, bell-shaped .....July, Sept.
C. LADY BOVILL..... grayish blue, cupped .....July, Oct.
C. MARMORATA..... light mauve, speckled with white .....July, Sept.
C. MODESTA..... bright blue, with deeper veins .....June, Oct.
C. MRS. JAMES BATEMAN..... pale lavender .....July, Sept.
C. PURPUREA HYBRIDA..... deep purplish violet .....June, Oct.
C. RETICULATA..... purple .....July.
C. VIOLACEA (Decandolle).....
C. THOMAS MOORE...pucy violet, with white stamens, passiflora-like...July, Sept.
C. VITICELLA..... bluish purple or dull rose .....July, Sept.
C. VITICELLA AMETHYSTINA.....pale violet-blue.....July, Sept.
C. VITICELLA ATRORUBENS.....Turkey red.....July, Sept.
C. VITICELLA MAJOR... reddish plum-colour, with green stamens.....July, Sept.
C. VITICELLA MOOREANA..... deep violet, bell-shaped .....July, Sept.
C. VITICELLA PURPUREA PLENA... dull greyish purple, double .....July, Sept.
C. VITICELLA RUBRA GRANDIFLORA... bright claret-red .....July, Sept.
C. VITICELLA VENOSA..... reddish purple, veined .....July, Sept.

§ 7. JACKMANNI TYPE.

Climbing mostly large-flowered Summer and Autumn-bloomers, flowering successionally in profuse continuous masses on summer shoots.

C. ALEXANDRA..... pale reddish violet .....July, Oct.
C. FLAMMULA.....white, sweet-scented, small-flowered .....July, Oct.
C. JACKMANNI.....intense violet-purple.....July, Oct.
C. MAGNIFICA..... reddish purple, with red bars .....July, Oct.
C. PANICULATA..... white, sweet-scented, small-flowered .....June, Sept.
C. PRINCE OF WALES.....deep pucy purple .....July, Oct.
C. PURPUREA HYBRIDA..... purplish violet, red veins .....June, Oct.
C. RENAULTII CŒRULEA GRANDIFLORA .. ... {violet-blue, with rosy-violet bar and .....reddish stamens.....} June, Oct.
C. RUBELLA.....rich claret-purple .....July, Oct.
C. RUBRO-VIOLACEA..... maroon-purple.....July, Oct.

C. SPLENDIDA..... rich reddish violet .....July, Oct.
C. STAR OF INDIA..... reddish plum, with red bars.....July, Oct.
C. TUNBRIDGENSIS..... deep bluish mauve .....July, Oct.
C. VELUTINA PURPUREA..... blackish mulberry .....July, Oct.
C. WILLIAM CRIPPS.....rich claret-purple.....July, Oct.

The following varieties, which have only recently flowered, are placed in this section provisionally, further experience as to their habit being required:—

C. JOHN MURRAY..... deep purplish mauve .....June, ——.
C. LADY STRATFORD DE REDCLIFFE... mauve .....June, ——.
C. LORD POLWARTH... dark motley violet, with red bars .....June, ——.
C. MARQUIS OF SALISBURY..... dark plum-colour .....June, ——.
C. MRS. MOORE..... white, very large .....June, ——.
C. PRINCESS LOUISE... bluish lilac, with red stain at base of bar.....June, ——.
C. W. E. ESSINGTON... reddish violet, deep red at base of bar.....June, ——.

§ 8. CŒRULEA ODORATA TYPE.

Non-climbing Summer and Autumn-bloomers of subshrubby habit, flowering successionally on summer shoots.

C. CŒRULEA ODORATA...reddish violet, white stamens, sweet-scented...July, Sept.
C. DIVERSIFOLIA CŒRULEA..... deep blue .....July, Oct.
C. INTERMEDIA..... blue .....July, Oct.
C. INTERMEDIA ROSEA..... lilac-rose, bell-shaped .....July, Oct.
C. VITICELLA NANA..... rosy violet .....July, Oct.

§ 9. ERECTA TYPE.

Non-climbing Summer and Autumn-bloomers of herbaceous habit.

C. ANGUSTIFOLIA... ..... white .....June, Aug.
C. DAVIDIANA..... bright blue, tubulose .....Sept.
C. DIVERSIFOLIA..... ..... purple .....Sept., Oct.
C. ERECTA (RECTA)..... white, sweet-scented .....June, Aug.
C. ERECTA HYBRIDA..... deep violet .....June, Aug.
C. ERECTA PLENA..... white, double, button-like .....June, Aug.
C. INTEGRIFOLIA..... blue, nodding.....June, Aug.
C. LATHYRIFOLIA..... white ....June, Aug.
C. LINEARILOBA..... pale purple .....May, July.
C. MARITIMA..... white .....June, Aug.
C. MARITIMA PLENA..... white, semi-double .....June, Aug.
C. OCHROLEUCA..... cream-colour .....July, Aug.
C. STANS..... whitish .....July.
C. TUBULOSA..... bluish purple, tubulose .....Aug., Sept.

CHAPTER XVIII.

Descriptive Notes of the Species and Varieties of Hardy Clematis, desirable for Garden Cultivation, alphabetically arranged.

IN the following descriptions we have included such of the ornamental forms of Hardy Clematis as are known to us, either from personal observation of the plants themselves, from published illustrations, or from communicated information which we deem to be reliable. In treating of them, we have endeavoured to indicate, for the information of those who desire to make selections for themselves, the peculiar features of each, in such a way as to assist them in realising the objects they may have in view in planting. Some of the earlier garden varieties are possibly superseded by more recent productions, but we have thought it best to retain them for the present, since their qualities are already known; while in regard to the more recent acquisitions, some little time must necessarily elapse before their true character can have been sufficiently tested, or their merits as decorative plants been fully ascertained:—

C. ADELINA PATTI *(Cripps)*.—One of the varieties of the lanuginosa group. It follows that type as regards habit and foliage, while the moderate-sized flowers are of a pure white, with very dark-coloured anthers, which show up in fine contrast with the sepals. It is one of the extensive series of pale-

coloured forms related to *C. lanuginosa*, which have been raised at the Tunbridge Wells Nursery.

C. ÆTHUSIFOLIA, *Turczaninow.*—A pretty dwarf slender climbing sub-shrubby Mongolian species, attaining the height of from six to seven feet or more. The leaves are biternately compound, usually opposite, with a very slender rachis, six to eight inches long, and somewhat resembling those of *Æthusa*, the leaflets being very deeply dissected. The flowers are yellowish-white, numerous, drooping, bell-shaped, with a narrowish tube, upwards of half an inch in length, and divided at the end into four reflexed segments; they are solitary, on stiff slender erect petioles, and are collected into branched panicles. Its divided foliage, and the profusion of its flowers, give it a very elegant aspect in the blooming season, which is during August and September, when it is said that the flowers frequently happen to occupy a length of five feet on the stem, and to constitute a sort of girandole formed of little bells. It appears to have found its way into the French gardens from the Botanic Garden of Naples; and a pretty woodcut figure is given in the *Revue Horticole* (1869, fig. 1); it is also figured in the *Gartenflora* for 1861 (t. 342).

C. ALBERT VICTOR *(Noble).*—This, which is one of the early-flowering hybrids of the patens group, was raised by Mr. C. Noble, of Bagshot, and in habit very much resembles its parent, *C. Standishii.* The foliage is ternate, with small ovate leaflets. The flowers are flat, from five to six inches across, freely produced, usually consisting of eight stout

broadly-elliptic rounded sepals; the colour is a deep lavender or a pale mauve, with a slightly-marked paler bar, reddish at the base, in the centre of each sepal, the filaments being white, tipped with chocolate-purple anthers. The period of flowering out-doors, in this and its allies, is from the middle or end of May to the beginning of July, but when grown under glass they may be had in flower by the middle of March. A First-class Certificate was awarded to it by the Royal Horticultural Society, in 1869.

C. ALEXANDRA *(Jackman).* — This belongs to the race of free-blooming varieties of the Viticella or Jackmanni group, and is of a remarkably showy and ornamental character. The leaves are pinnati-sect, with the lateral leaflets ovate, and the terminal one cordate. The flowers are large, of a pale reddish violet, with broad overlapping sepals, and in the centre is a tuft of greenish-white stamens. The unopened buds are of a greenish-purple hue. It is one of the continuous-blooming sorts, and being of a vigorous habit of growth, is a most desirable acquisition for decorative purposes.

C. AMALIA, *Siebold.*—A slender-growing variety of the patens group, furnished with ternate leaves, the leaflets of which are ovate and entire. The large star-shaped flowers, five to six inches across, are borne singly on the peduncles, and are composed of six or occasionally more (seven to nine) oblong-lanceo-late sepals, which are narrowish towards the base, and broadest above the middle; the colour is a very light bluish lilac, paler towards the base of the sepals, the

stamens being also of a lilac hue. The plant is of Japanese origin, and was introduced by Dr. Von Siebold; it is figured in the *Flore des Serres* (x., t. 1051), but with the sepals narrower than in the natural flower.

C. AMALIA REGINA.—See *C. Aureliani.*

C. ANEMONIFLORA.—See *C. montana.*

C. ANGUSTIFOLIA, *Jacquin.*—A hardy herbaceous perennial, of little importance as a garden ornament. The plant is of erect habit, three to four feet high, with pinnate leaves, having linear-lanceolate leaflets, and white flowers an inch and a half across, composed of from six to nine blunt sepals. It is a European plant, growing on the northern shore of the Adriatic. *C. lasiantha*, a native of Dahuria, has been by some botanists included in *C. angustifolia*, while on account of its larger flowers, others have regarded it as distinct. The flowers of this also are white, about two inches across, the buds being enveloped in woolly hairs, whence the name *lasiantha.* A neat figure of this latter plant is given in Loddiges' *Botanical Cabinet* (t. 918), under the name of *C. angustifolia;* while the typical plant is figured in Jacquin's *Icones Plantarum Rariorum* (t. 104).

C. ANNIE WOOD *(Cripps).*—This variety is one of the now numerous lanuginosa group, having foliage of a similar character, the growth and inflorescence being also similar. The flowers are very large, silvery white, with bright buff-coloured anthers.

C. ATROPURPUREA *(Spae).*—This is one of the

earlier garden varieties of the patens group, and was raised by M. Spae, a very successful Belgian cultivator of these plants. The habit and foliage accord closely with those of *C. patens*, but the flowers are very inferior, the sepals, though equalling those of the type in number, being narrower and more distant; the colour is a violet-blue, with the rib-like veins paler, and the anthers a reddish-brown. From its starry character it is not worth retaining in cultivation. A coloured figure is given in the *Illustration Horticole* (vii., t. 254).

C. AURELIANI *(Briolay-Goiffon).*—This is one of the Continental forms, which have been bred from *C. lanuginosa* hybridized with *C. patens*, and is of a less vigorous habit than the former, which was the mother parent. The plant has ternate woolly leaves, with narrowly-cordiform acuminate leaflets; and the flowers are large, full, of a lively porcelain-blue colour, with elliptic acuminate sepals, and very deep chocolate-red anthers. It is remarkably floriferous, as we learn from M. Briolay-Goiffon, who states that it was raised in 1860, from the above-named parents, and was sent out in 1865; also that the *C. Amalia regina*, sent out from another source in 1867, is the same plant.

C. AZUREA.—See *C. patens.*

C. BALEARICA.—See *C. calycina.*

C. BARBELLATA, *Edgeworth.*—A fine hardy climbing species, which grows naturally in the Western Himalaya, at Simla, and Kumaon, at an elevation of 10,000 ft., and in its general habit resembles *C. mon-*

tana, of the same region, flowering also at the same season. It is a free-growing plant, with slender woody branches, furnished with ternately-parted leaves, having the toothed leaflets frequently three-lobed. In the axils of these leaves are developed several nodding, bell-shaped, chocolate-purple flowers, consisting of four oblong-ovate convergent sepals, cream-coloured at the edges, much acuminated and recurved at the tips. In its foliage and mode of flowering this species approaches closely to *C. montana*, but in the colour and form of the flower it more nearly resembles *C. Viorna*. There is a good coloured figure in the *Botanical Magazine* (t. 4794), which is copied into the *Flores des Serres* (ix., t. 956).

C. Baroness Burdett-Coutts *(Jackman)*.—A stout-growing variety, apparently belonging to the lanuginosa type, but having an earlier-flowering habit. The leaves are large, ternate, of a pale green colour, with broadly ovate leaflets, which sometimes become divided in the manner of those of the florida type. It has the flowers of a pretty and delicate shade of Solferino-pink, with a creamy-white bar, and consisting of seven or eight broadly elliptic sepals, the stamens being pale-coloured, with whitish filaments, and pale brown anthers. It is a very delicate and beautiful flower, and quite distinct in its character.

C. Beauty of Surrey *(Jackman)*.—A handsome hybrid of distinct character, raised at the Woking Nursery, and partaking somewhat of the lanuginosa habit. The leaves are ternate, with ovate, entire or

lobate segments; and the beautiful flowers are of a charming light grayish-blue colour, which will render it an admirable plant for contrasting with those having flowers of a darker hue. It has been described as a great advance towards a bright blue summer *Clematis.*

C. BEAUTY OF THE BOWER *(Cripps).*—In habit, foliage, and inflorescence, this resembles the lanuginosa group, while the flowers are of medium size, white, slightly tinted with blue.

C. BELLE D'ORLÉANS *(Dauvesse).*—A fine Continental variety raised from *C. patens* in 1863, by M. Dauvesse, and sent out in the autumn of 1871. On the authority of MM. Simon-Louis, we have referred it to the Jackmanni group. The leaves are somewhat lengthened in outline; and the flowers are described as being of very large size, and of a beautiful violet colour, shaded with purple, passing to bluish violet, the stamens being white, with purple anthers. It is said to be a very beautiful variety, flowering, as we learn from M. Dauvesse, in the spring in May and June, and again in autumn. The colour, he remarks, is little known.

C. CALYCINA, *Aiton.*—This pretty evergreen species, known also under the name of *C. balearica*, is well worth growing for its distinctness. It is of climbing habit, has slender dark brown woody stems, growing eight to ten feet high, and bearing ternately-parted leaves, the segments of which are stalked, lanceolate, deeply cut or frequently three-lobed, and of a dark shining green. Several more or less drooping solitary

flowers spring from each leaf-axil; they are bell-shaped, consisting of four ovate-lanceolate sepals, recurved at the tip, greenish-white, dotted on the inside with oblong purple spots. It is a native of Minorca, and hardy in this country, but is best adapted for planting in sheltered positions against a conservative wall or in a cold house, on account of its blossoming late in winter. It is beautifully figured in Sweet's *British Flower Garden* (2 ser., t. 335), and a smaller but equally characteristic figure occurs in Loddiges' *Botanical Cabinet* (t. 720); that in the *Botanical Magazine* (t. 959) is less satisfactory. In habit and general character it resembles *C. cirrhosa*, but it would appear to be the hardier of the two.

C. CALYPSO *(Lemoine)*.—This variety belongs to the patens group, and resembles that type in its habit of growth, and in its ternate leaves. The flowers are of fine form, consisting of eight elongated sepals, symmetrically arranged in two whorls, and of an azure-blue colour.

C. CAMPANIFLORA, *Bertero*.—A slender, hardy European climbing species, growing from eight to ten feet in height, furnished with biternately pinnate leaves, the leaflets of which are small and entire or three-lobed. It produces small white or purplish-tinted, half-expanded or bell-shaped, fragrant flowers, in June and July. This plant is figured in Sweet's *British Flower Garden* (2 ser., t. 217); also in Loddiges' *Botanical Cabinet* (t. 987).

C. CANDIDISSIMA PLENA *(Lemoine)*.—This is a vigorous-growing variety of the patens group, and

produces loose double white narrow-sepaled flowers, of little merit. The leaves vary from simple to ternate, and the leaflets from broad ovate to ovate-lanceolate, or sometimes lanceolate. It is of Continental origin.

C. CAPTIVATION *(Cripps)*.—In habit, foliage, and inflorescence, this variety resembles *C. lanuginosa*, the flowers being of a very pale lavender colour, with a bluish midrib.

C. CHANDLERII.—See *C. Hendersoni.*

C. CIRRHOSA, *Linnæus.*—A climbing evergreen shrub, attaining eight to ten feet in height, and furnished with ovate somewhat cordate toothed leaves, growing in fascicles. The flowers which issue from the leaf-fascicles, are greenish-white, in one variety sessile, in another pedicellate within a small calyx-like involucre, and are produced in the winter season. It is a native of the South of Europe and North of Africa, and at one time was accounted a greenhouse plant, but Miller says of it:—"Now it is generally planted in the full ground, where the plants thrive much better than in pots, and produce plenty of flowers, which they never did when they were more tenderly treated; nor have I found that the plants have suffered from severe frosts, for those which have been growing in the open air at Chelsea more than fifty years, have resisted the greatest cold without covering." It, however, gets cut to the ground in very severe winters, even in Devonshire, and for this reason, as well as on account of its winter-flowering habit, is best adapted for sheltered conser-

vative walls or for cold glass houses. A beautiful figure is given in *Flora Græca* (t. 517); coloured figures of it also occur in the *Botanical Magazine* (t. 1070), and in Loddiges' *Botanical Cabinet* (t. 1806), both the latter representing the typical variety; and in the *Botanical Register* (1847, t. 21), this representing the pedicellate-flowered form.

C. CLARA *(Simon-Louis)*.—One of the varieties of *C. patens* raised in the establishment of MM. Simon-Louis, of Metz, having the foliage and the general form of its parent, and chiefly remarkable for the size of its flowers and their colour, which is a beautiful violet-red, passing off to a bluish-violet, the sepals being distinct.

C. CŒRULEA.—See *C. patens*.

C. CŒRULEA ODORATA *(Hort.)*.—This is a very distinct plant, of moderate stature, herbaceous rather than climbing in habit, and a continuous and abundant bloomer, the flowers having a strong and delicious fragrance, resembling that of the hawthorn. The leaves vary from simple and ovate, to three-parted or pinnate, with moderate-sized leaflets, which are entire, often unequal-sided, or with one or two irregular lobes. The flowers are comparatively small, and consist of four oblong spreading reddish-violet sepals, $\frac{3}{4}$ of an inch long, and reflexed at the margin, the large central tuft of prominent whitish staminal filaments contrasting strongly with the dark hue of the sepals, and rendering the plant as desirable for its well-contrasted colours, as it is for the fragrance of its blossoms. It is so abundantly

floriferous that the plants have the appearance of huge bouquets. Not being of a climbing habit, the stems require to be fastened up to some kind of support; they grow from four to six feet high, producing copiously-branched heads of flowers, which commence blooming early in July and continue onwards till the autumn. It must not be confounded with *C. patens*, which is sometimes called *C. cærulea*, and appears to be of hybrid origin; but we have been unable to learn any particulars of its history beyond this, that it was obtained from the South of France about 15 years since. We are surprised that so distinct, showy, and fragrant a plant should be so little known. It has been attributed to M. Armand Gontier.

C. Countess of Lovelace *(Jackman)*.—This fine variety is of a remarkably vigorous habit of growth, and was obtained by crossing *C. Sophia plena* with the hybrids of the Jackmanni type. Though technically included in the patens group, the plant shows a great accession of vigour. The leaves are ternate, with large, broadly ovate leaflets, measuring fully an inch and three-quarters in breadth. The flowers are most distinct, having large obovate-lanceolate acuminate sepals of a bluish lilac, forming a kind of guard to the flower like the guard petals of a hollyhock, and a central rosette of smaller sepal-like bodies of a deep lilac, forming a double flower, with a tuft of white filaments and yellow abortive anthers. This promises to be a remarkably beautiful and interesting variety, possessing vigour of growth, combined with a novel style of flower. It has the peculiarity of the

flower-stalks being pendent, with the blossoms themselves turning upwards, and thus being shown off to great advantage.

C. CRIPPSII *(Cripps)*.—A vigorous-growing plant, with the free-flowering habit of the Jackmanni group, and having simple or ternate leaves, with broad cordate ovate leaflets. The flowers are of a deep bluish mauve colour, and very much resemble those of *C. tunbridgensis*, which latter, however, appears to be the better variety of the two.

C. CRISPA, *Linnæus*.—This plant belongs to the Viticella group, and is of comparatively dwarf stature, the stems not reaching more than from three to four feet in height. The upper leaves are bipinnatisectly pinnate, with long lanceolate segments, the lower ones pinnatisect, with leaflets of an ovate or three-lobed form. The flowers are fragrant, nodding, bell-shaped, pinkish-white, with leathery convergent crispy-margined sepals, recurved at the tip, the stamens being of a pale green. It is a successional bloomer, flowering incessantly from June to October, and though less showy than some of the modern hybrids, is a well-marked and desirable species for the mixed garden. The plant comes from North America. An excellent figure is given in the *Botanical Register* (1846, t. 60), and a good plain illustration will be found in the ancient work of Dillenius (*Hortus Elthamensis*, t. 73). In gardens, what appears to be the same plant is met with under the name of *C. Shillingii*, but Koch regards the latter as distinct, and as distinguishable from *C. crispa* by its less

leathery sepals; he, moreover, asserts that the *C. reticulata* of Watson (*Dendrologia Britannica*, t. 72) is synonymous with *C. Shillingii.*

C. CYLINDRICA, *Sims.*—A North American herbaceous perennial, of dwarf and somewhat weakly habit, attaining from two to three feet in height, and furnished with pinnate leaves, having lance-shaped or oblong-ovate pale green leaflets. The flowers are purplish-blue, bell-shaped, and drooping, the long narrowish sepals having on the exterior surface a deep purple bar passing off to pale lavender-blue at the edges. It blooms in July and August. The plant is nicely figured in the *Botanical Magazine* (t. 1160), and less satisfactorily in Andrews' *Botanists' Repository* (t. 71). According to Don, the *C. divaricata* of Jacquin (*Eclogæ Plantarum*, t. 33) is the same plant; the flowers, however, are represented as smaller in the plate referred to.

C. DAVIDIANA, *Decaisne.*—This herbaceous perennial species, which was introduced about 1864 to the French gardens from Pe-che-le, in the north of China, by M. l'Abbé David, is related to the Mongolian *C. tubulosa.* It grows into a neat bush about two and a half feet high, with hairy stems; the leaves ternate and petiolate, with oval, irregularly crenate, strongly-nerved leaflets; and the flowers of a bright blue, tubulose, about half an inch in length, resembling those of a single hyacinth, and having numerous yellow anthers; they are mostly produced in clustered heads of from six to fifteen together, the heads subtended by bract-like leaves, but some few

show singly in the leaf-axils. Its numerous flowers, disposed in elegant bouquets, render it an ornamental perennial for the flower-border, where it flowers in September. A woodcut figure is given in the *Revue Horticole* (1867, 90).

C. DIVERSIFOLIA, *De Candolle.*—A hardy herbaceous perennial, the native country of which appears to be unknown. It has the leaves sometimes entire, sometimes three-lobed or even ternate, with the leaflets lance-shaped and acute, and often decurrent. The flowers are large, erect, purple, the four narrow lanceolate sepals spreading, and very acute. It blooms in September and October. It is figured in Delessert's *Icones Selectæ Plantarum* (t. 4), from specimens grown in the Parma garden.

C. DIVERSIFOLIA CŒRULEA* *(Bonamy).*—This belongs to the non-climbing group, and is a seedling from *C. intermedia*, itself supposed to be a chance hybrid produced between *C. integrifolia* and *C. Viticella cœrulea.* The plant grows to a height of between four and five feet, is of good habit, and flowers freely about midsummer. The leaves are broad, and in most cases lobate, though sometimes undivided; and owing to the peculiar habit of the plant, the flowers, which are small, and of a deep blue colour, are so disposed as to stand out horizontally quite clear of the leaves, and thus become dis-

* We learn from MM. Bonamy that both this and *C. intermedia rosea*, were raised from seeds of *C. intermedia*, a chance seedling found some years since in their nurseries. *C. intermedia rosea* differs from its parent only in having rose-coloured flowers, the flowers of *C. intermedia* itself being blue; while *C. diversifolia cærulea* differs chiefly in the variations of form presented by its foliage.

played to advantage. It is a desirable acquisition, on account of its distinct habit.

C. DUKE OF BUCCLEUCH *(Noble)*.—A handsome form of the early or spring-flowering group represented by *C. patens*. The leaves, as in other forms of this group, are ternate. The flowers are of a uniform pure mauve colour, and consist of eight spreading sepals of an elliptic oblong form, terminating in a distinct apiculus, the staminal filaments being white tipped with rose, while the anthers are chocolate-purple, rather shorter than in some of the allied kinds.

C. EDITH JACKMAN *(Jackman)*.—A charming variety of the patens group, quite novel in character, and which first flowered in 1871. It is of free growth, and has ternate leaves, with ovate acute leaflets; while the delicately-tinted flowers, which measure fully five inches across, consist of eight elliptic oblong sepals, which have a long apiculate apex, and are of a blush-white, with a broad purplish-rose or wine-red bar down the centre of each, forming a well-defined rosy star on the light-coloured ground. The flowers are nicely scented with a delicate primrose odour.* The stamens, which are somewhat conspicuous, have white filaments, and long chocolate-purple anthers.

* Since the remarks at p. 19 in reference to the fragrance of some of the recent Woking hybrids have been printed, it has been ascertained that other seedlings of the same batch, not distinct enough for naming, possess a decided fragrance when bloomed in the open air, so that we are now enabled to state that this quality does not depend on the warmth of a confined atmosphere. It is remarkable that some only of the seedlings are thus fragrant. The named varieties possessing fragrance have not been flowered out-doors; but, from the fact just related, it may be confidently assumed that they would be found to be as sweet-scented in the garden as when bloomed in the greenhouse.

C. ERECTA, *Allioni.*—This species is of herbaceous habit, and perennial duration. The stems are erect, two to three feet high, and furnished with pinnate leaves, having stalked ovate-acuminate entire leaflets. The flowers are white, sweet-scented, and though small, they grow in dense corymbs. The plant, which is a native of the South of Europe, is figured in Jacquin's *Floræ Austriacæ* (t. 291), and in Woodville's *Medical Botany* (t. 62).

C. ERECTA HYBRIDA (*Lemoine*).—This hardy herbaceous perennial is of hybrid origin, as its name implies, its parents being *C. erecta* and *C. integrifolia.* The stems are terminated by large bunches of deep violet-coloured flowers, having yellow stamens. The plants require to become well established before the full beauty of their inflorescence can be realized.

C. ERECTA PLENA *(Lemoine).*—A fine hardy herbaceous plant, growing to about three feet in height, having, like the type, pinnate foliage, and terminal bunches of pure white flowers, which differ from those of the type in being full double, like the silvery button-like blossoms of *Ranunculus aconitifolius plenus.* It is a most valuable acquisition amongst hardy border flowers of this type.

C. ESTELLE RUSSELL *(Noble).*—One of the Sunningdale brood, related to *C. patens.* The leaves are ternate, with ovate leaflets; and the flowers, which consist of eight elliptic sepals, are white, in the way of those of *C. Queen Guinevere.*

C. EXCELSIOR *(Cripps).*—This, which is one of the lanuginosa group of varieties raised by Mr. Cripps of

Tunbridge Wells, is a distinct double-flowered sort, with flowers about six inches across, having large outer sepals, like the guard-petals of a hollyhock, and of a grayish-purple or deep mauve colour, marked with a reddish-tinted or plum-coloured median bar, while in place of the stamens it produces about five rows of short obovate obtuse petaloid bodies of the same grayish colour as the sepals, and which are, moreover, cucullate, with an apiculus. It was considered worthy of a First-class Certificate when shown at one of the meetings at South Kensington in 1869.

C. Fair Rosamond *(Jackman)*.—A very free-growing and handsome variety of the patens group, which flowered for the first time in 1871. It has ternate leaves, made up of ovate acute leaflets, which are sometimes lobed. The flowers are fully six inches across, and consist of eight elliptic oblong sepals which overlap at the edges, and are terminated by a long apiculus one-fifth of an inch in length; their colour is a blush-white, with a somewhat indistinct wine-red bar up the centre of each sepal, the stamens being very prominent and distinct, with filaments of a purplish-red, white only at the very base, and anthers of a darker purple. The flowers are exceedingly fragrant, the scent being intermediate between that of violets and primroses, and under the influence of moderate sun-heat almost equal to that of violets.* It is larger-flowered than *C. Edith Jackman*, and has a less clearly defined star, but the staminal tuft is more distinct, and more deeply coloured.

* See note to C. Edith Jackman, p. 93.

C. FLAMMULA, *Linnæus.*—A well-known European species of *Clematis*, which is highly prized in gardens for the fragrance of its blossoms, the perfume of which resembles that of the hawthorn, but is sweeter. It is a somewhat slender climber, though of free and vigorous growth, soon attaining a height of from ten to fifteen feet, but under favourable conditions of soil growing much higher, and covering a considerable extent of surface. It is remarkable for the dark green colour of its leaves, which often remain on the plant till far into the winter, and in the perfect state are bipinnate and smooth, the small leaflets varying in character in different seedling forms, being usually ovate or oblong in outline, but sometimes almost linear. The flowers are individually small, but very abundant in the late summer and autumn months, the inflorescence being densely-branched; they have four linear-oblong white sepals, and a crowd of white stamens; and growing as they do in immense masses, the whole upper part of the plant forming a sheet of white, they are very attractive during the blooming season. It is generally known as the Sweet-scented Clematis. Several varieties of this are recorded in books, but are now rarely met with as distinct objects of cultivation. The species is usually raised from seeds, and thus, as not unfrequently occurs in similar cases, presents a certain degree of difference amongst the individual plants. It is figured in Reichenbach's *Icones Floræ Germanicæ* (iv., t. 62-3).

Though well adapted for walls, trellises, pillars, and such like positions in the dressed garden, this plant is perhaps never more effective in pleasure-ground

scenery than when planted on some rocky eminence, where, being allowed to assume a decumbent habit, its myriads of pure white blossoms seem to pour down the declivities like masses of drifting snow, at the same time embalming the air with their fragrance. Any good soil suits it, and it will thrive in any open situation, but is not adapted for planting in shady places. It is, moreover, one of the latest flowers to decorate the garden, continuing, like *C. Jackmanni* and its allies, to bloom on until further growth is stayed by frost. The fleshy roots are used as stocks on which to graft the different species and varieties of the *Clematis*.

C. FLAVA.—See *C. orientalis*.

C. FLORIDA, *Thunberg*.—A slender climbing Japanese species which, under favourable climatic conditions, grows to a considerable height, and assumes an ornamental character. The leaves are extremely variable in development, but more or less distinctly ternate or biternate, the leaflets being small, and of an ovate lance-shaped figure. The flowers are flatly expanded, two and a half to three inches across, with six broad ovate and overlapping sepals of a creamy-white colour, marked on the back with a dull purplish bar, and having a central tuft of purplish stamens. It has long been known in cultivation, and, though eclipsed by modern introductions and the hybrids obtained from them, is even yet a desirable plant, on account of the variety which it affords. Of the figures which have been published, we may specially refer to those

in the *Botanical Magazine* (t. 834), and in Andrews' *Botanist's Repository* (t. 402), in which, however, the anthers are shown too deeply coloured.

C. FLORIDA BICOLOR.—See *C. Sieboldii.*

C. FLORIDA PALLIDA *(Lemoine).*—This variety is of Continental origin, and is a seedling raised from *C. Standishii*, which it resembles in the habit of growth, and in the size and form of the flowers. The latter, which consist of eight sepals, are, however, of a pale flesh-colour or blush-tinted white, with dark brown anthers.

C. FLORIDA PLENA *(Hort.).*—This variety exactly resembles the type in respect to habit and foliage. The flowers also are similar in size and colour, being of a creamy white, more or less pure according to freeness of development, but they differ in having, in place of the purplish stamens, a much larger central tuft of petaloid subulate organs, forming a central rosette of a greenish-white hue, this rosette remaining persistent after the sepals have fallen away. Though a pretty plant, it is not so handsome as *C. Sieboldii*, which in many respects resembles it, but has the advantage of contrast of colour in the central tuft of petaloid filaments. A figure of this form is given in Jacquin's *Plantarum Rariorum Horti Schœnbrunnensis Descriptiones et Icones* (t. 357).

C. FLORIDA VIOLACEA *(Lemoine).*—This variety is also a seedling raised from *C. Standishii*, in the establishment of M. Lemoine, of Nancy. It resembles that plant both in habit and in the size and form of its flowers, which are remarkably handsome, consist-

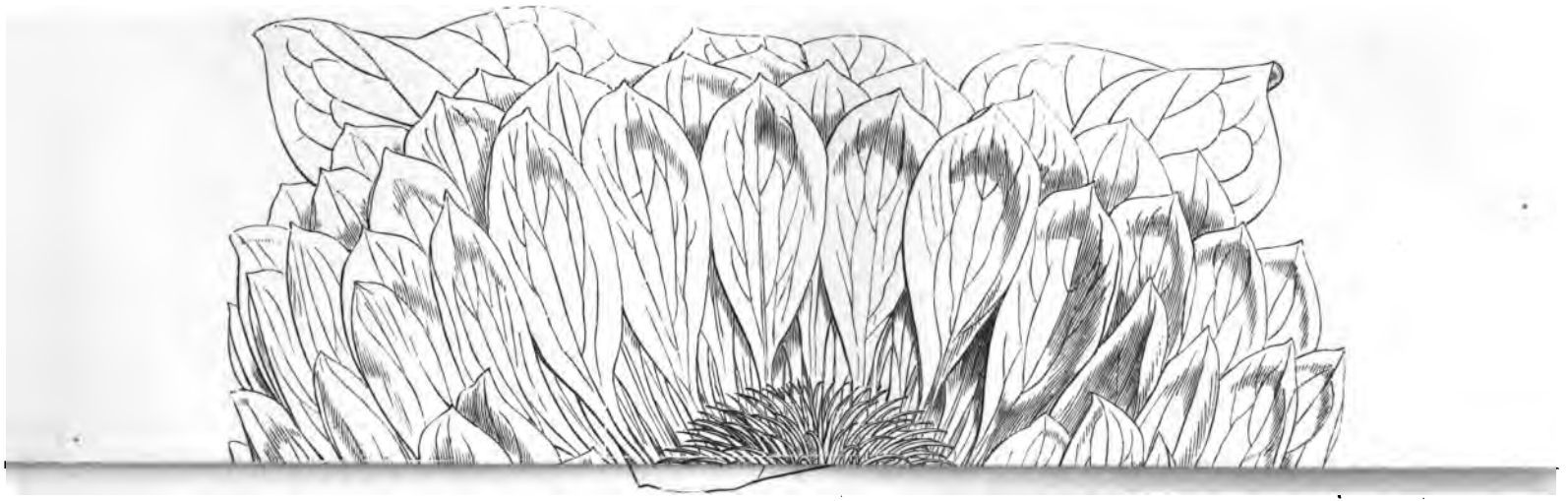

PLATE XIII.–CLEMATIS FORTUNEI.

ing of eight sepals of a bright marbled-violet colour, the central bar of each sepal being of a brighter hue, and the anthers of a dark brown or maroon.

C. FORGET-ME-NOT *(Cripps)*.—A fine variety of the lanuginosa type, as to habit of growth and foliage. The flowers are extra fine, with very broad sepals, and are of a silvery lavender, with a bluish midrib.

C. FORTUNEI, *Moore*. [Plate XIII.]—This remarkably fine double-flowered *Clematis* was introduced from Japan by Mr. Fortune, after whom it is named. In regard to its flowers, it bears considerable resemblance to *C. monstrosa*, but its foliage is of a much bolder character; indeed, it seems to bear a relation to *C. lanuginosa*, similar to that which *C. monstrosa* bears to *C. patens*. The leaves are ternate, or in the less developed states simple, the leaflets being broadly ovate, almost cordate. The flowers have a slight and agreeable fragrance, like that of orange-blossoms, and consist of several series of oblong stalked sepals of a creamy-white colour, acquiring in age a tinge of pink, and forming large and dense rosettes, with a tuft of pale-coloured filaments in the centre. The flowers grow singly at the ends of the young growths, and usually have beneath them a whorl of simple cordate leaves, forming a kind of involucre. It was figured in the *Gardeners' Chronicle* (1863, 676), this figure being repeated in our Plate XIII. by permission of the editors of that publication. A coloured figure occurs in the *Florist and Pomologist* (1863, 169); in the *Flore des Serres* (xv., t. 1553); in the *Floral Magazine* (t. 153), thence copied into the

Belgique Horticole (xiv., t. 3); and there is a woodcut illustration in the *Illustration Horticole* (x., misc. 86).

C. FORTUNEI CŒRULEA.—See *C. John Gould Veitch.*

C. FRANCOFURTENSIS *(Rinz).*—This is one of the earlier hybrid varieties raised on the Continent, its parents being *C. patens* and *C. Viticella cœrulea.* The leaves resemble those of *C. Viticella*, and the sepals are smooth and flat, so that the flowers take the expanded form of the first-named parent, and are of moderate size, while they have the deep purplish-blue colour of *C. Viticella.* As an ornamental plant it is now superseded by better kinds.

C. FULGENS *(Simon-Louis).*—A variety of moderately vigorous growth, but of very distinct character, from the intensely dark colour of its narrow-sepaled flowers. It is a Continental hybrid raised from *C. lanuginosa*, crossed with *C. Viticella grandiflora.* The leaves are pinnatisect, with small ovate leaflets; and the flowers, which are freely produced, consist of five to six narrow lanceolate sepals, of a very rich dark velvety mulberry purple or blackish crimson. In consequence of the narrowness of the sepals the flowers have a peculiar starry appearance, but their rich deep lustrous colour renders them well worthy of being grown in a collection. The sepals appear to have a tendency to become incised at the edge.

C. FUSCA, *Turczaninow.*—An interesting species of sub-erect or scandent woody habit, having pinnatisect leaves, the leaflets of which are stalked, ovate-lanceolate, or rarely cordate-ovate or linear-lanceolate.

The flowers are drooping, bell-shaped, nearly an inch long, borne profusely during the summer months on short woolly axillary peduncles, and consist of from four to five ovate-oblong connivent sepals, which are spreading at the tip, woolly on the outer surface, and of a brownish-purple colour, with a whitish woolly margin. Though a pretty plant, *C. fusca* can scarcely be ranked amongst the important species for decorative uses. It is a native of Dahuria and the Kurile Islands. There are two varieties, *mandschurica* and *violacea*, differing very slightly in the size of the flowers, both of which are nicely figured in Regel's *Gartenflora* (t. 455).

C. GEM *(Baker)*.—A showy hybrid raised by Messrs. G. Baker and Son, of Bagshot, and the result of a cross between *C. Standishii* and *C. lanuginosa*, the habit of growth and season of inflorescence more nearly resembling those of the latter parent. The leaves are ternate, or often simple, with the leaflets ovate or cordate-ovate. The flowers are nearly as large as those of *C. lanuginosa*, and consist normally of about six sepals, which are broad, ovate, and overlapping, and of a deep lavender or grayish-blue, acquiring a mauve tint in some stages of development, the filaments being white, and the anthers of a reddish-purple. This variety has a close resemblance to *C. reginæ*, both in the foliage and in the colour of its flowers, but it is a more abundant bloomer, commencing to flower in May, and producing flowers more or less freely till arrested by frost. The parent plant, though much weakened by propagation, had,

as we were informed, "upwards of 100 flower-buds" so late as the middle of October, 1871. It was awarded a First-class Certificate by the Royal Horticultural Society in 1870.

C. GEORGE CUBITT *(Jackman)*.—This is a variety of the patens type, slender in growth, but nevertheless remarkably free. The leaves are ternate, with neat ovate-acuminate leaflets. The flowers are full, slightly but prettily recurved, measuring about five inches across, and consisting of eight sepals; they are of light lavender or pale lilac-mauve colour, with a darker patch at the base of the sepals; the stamens have white filaments, reddish at the upper end, where they join the chocolate-purple anthers.

C. GLOIRE DE ST. JULIEN *(Carré)*.—This variety belongs to the lanuginosa group, and gives bold simple or ternate leaves, with the leaflets ovate, often broadly ovate or sometimes almost cordate, the apex extended into an acuminate point. The buds, as in *C. lanuginosa* itself, are erect and woolly. The flowers are abundant, very large and upwards of nine inches in diameter, composed of six to eight sepals, which are white, flushed in the younger flowers with a pale gray or mauve tint which bleaches out as the blossoms get older, and having yellow stamens. This variety, which was raised by M. Carré, of Saint-Julien, near Troyes, from *C. monstrosa plena*, crossed with *C. lanuginosa pallida*, was sent out in 1867, and has received the award of a Silver Medal from the Société d'Horticulture de L'Aube.

C. GLORIA MUNDI *(Cripps)*.—Habit, growth, foliage,

and inflorescence of *C. lanuginosa;* the flowers large, white, shaded with lilac.

C. GRAHAMI, *Bentham.*—A hardy climbing shrub resembling *C. virginiana*, of free growth, with pinnated leaves, and small green panicled flowers, produced in profusion in August and September; native of Mexico. It is of little garden interest, except as a rapid-growing screen for arbours or trellis-work. A woodcut figure will be found in the *Journal of the Horticultural Society* (ii., 315).

C. GRANDIFLORA MUTABILIS *(Dauvesse).*—This variety, as we learn from M. Dauvesse, of Orleans, was raised by him in 1863, from *C. Sophia;* and belongs therefore to the patens section. It has the leaflets somewhat lengthened out; and the flowers are large, and of a violet tint.

C. GRATA, *Wallich.*—A free much-branched Indian climber, growing from twelve to fifteen feet high, with hairy stems and leaves, the latter being subbiternate, with ovate-cordate inciso-serrate or three-lobed leaflets. The flowers are small, yellowish-white, in axillary panicles, much more to be valued for their fragrance than their attractiveness. Indeed Dr. Royle remarks of it, that "*C. grata* for its fragrance, and *C. montana* for the showy nature of its garlands of numerous white flowers, are the most desirable of the Himalayan species of this charming genus, as ornamental plants." The present species is figured in Dr. Wallich's splendid *Plantæ Asiaticæ Rariores* (t. 98).

C. GRAVEOLENS, *Lindley.*—A small slender climbing shrub, of free, much-branched, rapid growth, soon covering a large surface, and thickly clothed with pale green, smooth, pinnately-biternate or triternate leaves, glossy beneath, the ultimate ovate leaflets of which are small, and either entire or with an occasional lobe or tooth, or more or less deeply trifid. The flowers, though solitary, are produced freely, somewhat late in the summer—from August to October; they are borne at the ends of the branches and their ramifications, are rather over an inch broad when expanded, and consist of four spreading ovate pale yellow sepals, which are downy inside, the large central tuft of stamens being of a pale yellowish colour. They have a rather heavy odour, somewhat resembling that of the flowers of the White Lime *(Tilia alba)*, and in which the scents of honey, of almonds, and of lemons seem to be blended. It is an Indian species, the original specimen having been raised in 1845, from seeds sent from Chinese Tartary and the snowy passes (elevation 12,000 ft.) to the garden of the Horticultural Society. A woodcut figure is given in the *Journal* of that Society (i., 307).

C. GRAVEOLENS.—See also *C. orientalis.*

C. GUASCOI *(Guasco).*—A hybrid variety, which originated at Liége, and was obtained between *C. Viticella* and *C. patens (cœrulea).* The foliage resembles that of the former plant, while the flowers are moderate-sized, and of a deep purplish-violet colour. It has been figured in the *Belgique Horticole* (vii., t. 37), and in the *Illustration Horticole* (iv., t. 117), but is now superseded.

C. GUIDING STAR *(Cripps)*.—A variety of the lanuginosa group, resembling that species in habit and in foliage. The flowers are extra fine, of a glossy lavender colour, with deep lavender veins.

C. HELENA *(Siebold)*.—This Japanese variety of *C. patens* was introduced by Dr. Von Siebold, and resembles the type both in habit and foliage. The flowers of the present variety are, however, of a pure white, with a tuft of pale straw-coloured stamens, in which respect it differs from *C. Louisa*, which, though also white-flowered, has the stamens of a violet hue. This variety is figured in the *Flore des Serres* (xi., t. 1117), which gives a fair representation of its character; a coloured figure is also given in the *Illustration Horticole* (i., t. 21).

C. HENDERSONI *(Henderson)*.—This is a handsome climber, of very free-blooming character, attaining from eight to ten feet in height, and having the lower leaves simple and the upper ones pinnatisect, with lance-shaped entire leaflets. The very abundant flowers are bell-shaped and deflexed, with obovate apiculate sepals, about an inch and a quarter in length, which are of a rich bluish-purple colour, with a tuft of green stamens in the centre. It is an ornamental plant not only on account of the profusion of its flowers, but also for the long continuance of its blooming season. This *Clematis* was raised so long ago as 1835, by Mr. Henderson, of the Pine-Apple Nursery, and was first flowered by Mr. Chandler, of Vauxhall, whence it is sometimes called *C. Chandleri*. It is no doubt of hybrid origin; Loudon

suggests that it was probably obtained between *C. Viticella* and *C. integrifolia;* Koch makes it a variety of *C. cylindrica*, and suggests that it may possibly have been obtained between that plant and *C. Viticella.* Whatever its origin, there can be no question that it was, in its day, a most valuable acquisition for garden decoration, and it is good even now.

C. Henryi *(Anderson-Henry).*—A grand hybrid variety of the lanuginosa type, having been bred between that species and *C. Fortunei.* It is of robust habit, a very free bloomer, the flowers being large and finely formed, and of a beautiful creamy white. The flowers are produced in August, and continue in succession till November, or even later, when grown under glass; they have generally from six to eight sepals, which take the fully expanded form, and this gives to the flowers a very showy character. It is in the hands of the Messrs. Lawson and Son, and was obtained by Mr. Anderson-Henry, whose name is so intimately connected with the improvement of garden plants by means of careful and systematic hybridization.

C. Impératrice Eugénie *(Carré).*—This is one of the varieties raised by M. Carré, of Troyes, and was obtained from *C. monstrosa plena* crossed with *C. lanuginosa pallida.* It was sent out in 1867. The plant is described as being very vigorous and floriferous. The leaves are simple or ternate, with broad woolly leaflets. The flowers are of fine form, large, about nine inches across, composed of eight broad sepals, of a pure white, with the stamens of an ashy-gray.

It was awarded a Silver Medal by the Société d'Horticulture de L'Aube.

C. IMPERIALIS *(Carré)*.—A variety raised from *C. Amalia*, one of the patens group, and having the growth and foliage of that species. The flowers are about seven inches across, of a celestial-blue colour, relieved by the presence of sulphury-white stamens. The plant is said to be of vigorous habit, and very floriferous.

C. INSIGNIS.—This variety has originated from *C. patens*, and is similar to it, both as regards its foliage and its mode of growth. The flowers are of a soft violet-blue, but they are inferior in form, and the variety may now be regarded as superseded by better sorts.

C. INTEGRIFOLIA, *Linnæus*.—An old-fashioned herbaceous perennial, with erect stems growing about two feet high, furnished with broadish entire ovate-lanceolate leaves, and producing solitary nodding blue flowers, having coriaceous sepals. A native of Southern Europe and Siberia. It is figured in the *Botanical Magazine* (t. 65), in Jacquin's *Florœ Austriacœ* (t. 363), and in Reichenbach's *Icones Florœ Germanicœ* (iv., t. 60).

C. INTERMEDIA *(Bonamy)*.—This variety was discovered as a chance seedling in the nursery of MM. Bonamy frères, of Toulouse. The plant was found springing up in a bed near to where *C. integrifolia* and *C. Viticella cœrulea*, its supposed parents, were growing; and being intermediate in character, it was named *intermedia*. The leaves resemble those of

C. Viticella, being often pinnatisect, with variously-formed leaflets; while the flowers are bell-shaped, of moderate size, and of a blue colour. MM. Bonamy state that it is a dozen years since they first found *C. intermedia*, and that they have subsequently made several sowings of its seeds the results of which have convinced them that it really came from *C. Viticella* and *C. integrifolia*, since the seedlings have often reverted to the two parents, as well as yielded singular variations. Thus, of *C. integrifolia* they have obtained seedlings the stems of which are slender and from six to seven feet high, while the species itself grows only about two and a half feet; and again, of *C. Viticella* they have seedlings growing not more than three and a half feet high, while the type grows six or seven feet or more.

C. INTERMEDIA ROSEA *(Bonamy)*.—An erect-growing ornamental sub-shrubby *Clematis*, which, though attaining about six or seven feet in height, is not of climbing habit. The leaves are variable in form, but approach those of *C. Viticella*, being often pinnatisect, with the ovate-oblong leaflets decurrent behind. It is a free-blooming plant, with bell-shaped horizontal or nodding flowers, large as compared with those of most of the non-climbing species, of a pleasing lilac-rose colour, the sepals being broad and mucronate. The flowers altogether bear much resemblance in form to those of the Viticella group; and are developed effectively above the foliage in branching panicles of eight or ten together; so abundant indeed are these in the adult plants, that

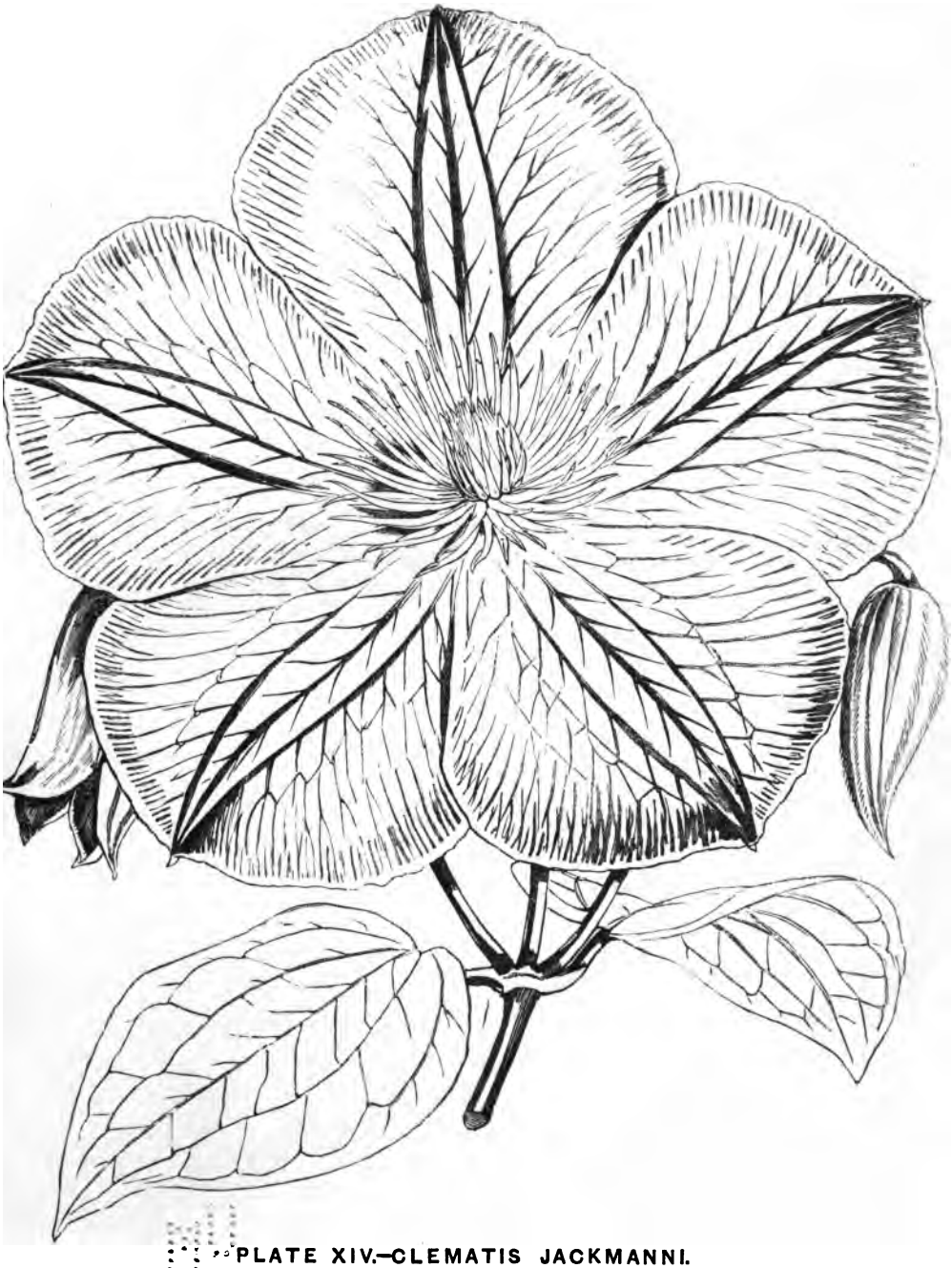

PLATE XIV.—CLEMATIS JACKMANNI.

they have the appearance of a huge bouquet. The plant is suitable for low walls or trellises, or for furnishing the naked trunks of trees occupying prominent positions. The variety is a seedling from *C. intermedia*, which was itself a chance seedling in the nurseries of MM. Bonamy, of Toulouse, and is supposed to be a natural hybrid between *C. integrifolia* and *C. Viticella cærulea.* See preceding paragraph.

C. JACKMANNI *(Jackman).* [Plate XIV.]—This may be regarded as the type of a race of hybrids to the dissemination of which is to be attributed the present popularity of these hardy ornamental climbers. Though the first which was introduced to public notice, *C. Jackmanni* is a wonderfully fine acquisition, and up to the present time stands in the foremost rank as to merit. The plant is free in growth, and an abundant and successional bloomer, becoming profusely laden with very large showy flowers of a remarkably rich colour. It grows to a moderate height, and bears bold pinnatisect leaves, the leaflets of which are large (three to four inches long), ovate-lanceolate, acuminate, sometimes slightly cordate at the base, entire or occasionally incisely-toothed, narrower and more pointed than those of *C. rubella.* The flowers are from five to six inches across, and consist of from four to six roundish obovate apiculate sepals, which have a ribbed bar down the centre; they are of an intense violet-purple remarkable for its velvety richness, and a shading of reddish-purple towards the base, and are furnished with a broad

central tuft of pale-green stamens. The buds are green and pendent. It has the continuous-blooming property developed to a remarkable degree—a character which it doubtless owes to its female parent, which was of the *C. Viticella* type. It is figured in the *Gardeners' Chronicle* (1864, 825); also in the *Florist and Pomologist* (1864, 193); and subsequently in the *Flore des Serres* (xvi., t. 1628-9); the *Floral Magazine* (t. 226); and the *Illustration Horticole* (xi., t. 414). M. Morren, who also figures it in the *Belgique Horticole* (xiv., t. 18), gives it the novel name of *C. Viticello-lanuginosa.* Our Plate XIV. is taken by permission from the figure in the *Gardeners' Chronicle.* For illustrations of the various uses to which this and the kindred varieties may be applied, see Plates V., VI., IX., X., XI., and XII.

C. Jeanne d'Arc *(Dauvesse).*—A bold free-growing and vigorous variety, raised in 1869, from *C. patens (azurea grandiflora)*, but which must have been crossed with *C. lanuginosa*, since it agrees in habit with that species. The leaves are simple and cordate, or ternate with broadly ovate entire leaflets. It has erect woolly flower-buds, as in *C. lanuginosa*, and the flowers are very large, seven inches or more across, full and finely-formed, the sepals of a grayish or French-white colour, with three bluish veins in the centre of each; they have a central tuft of brownish stamens. The flowers become white as they gain age, and are then of great beauty.

C. John Gould Veitch *(Veitch).* [Plate VII.]—A very distinct and handsome variety of *Clematis*,

with double blue flowers, one of the finest of recent introductions from Japan, whence it was sent in 1862 by Mr. Fortune, to the nursery of Mr. Standish, and before its distribution was transferred to the collection of the Messrs. Veitch. It belongs to the florida group, and is the counterpart of *C. Fortunei*, except as regards the colour of its flowers. The leaves are ternate, with broadly ovate, almost cordate leaflets; and the flowers are large, four to five inches in diameter, rosette-formed, consisting of several (six to eight) rows of lanceolate stalked sepals of a beautiful soft lavender-blue surrounding the central tuft of pale-coloured stamens. In some of the Continental collections this variety is called *C. Veitchii*, and at the London International Exhibition in 1866, Mr. Standish showed it under the name of *C. Fortunei cœrulea*. M. Van Houtte has published a good figure of it in the *Flore des Serres* (xviii., t. 1875-6); and another, tolerably characteristic, has appeared in the *Floral Magazine* (t. 394). We have to thank Messrs. Veitch and Sons for the use of the woodcut which forms our plate.

C. John Murray *(Jackman)*.—A remarkably free-growing and free-blooming variety, apparently of the patens group, but somewhat more vigorous both in habit and foliage, and later in its season of flowering. It has bold ternate leaves, with ovate acute leaflets. The flowers are from four to five inches across, with eight elliptic-oblong acute sepals of a deep purplish-mauve, becoming reddish towards the base of the bar; the stamens being prominent, with

whitish filaments, and long pale-brownish anthers. A very showy flower, somewhat intermediate in season between the spring and summer varieties. It flowered for the first time in 1871.

C. Lady Bovill *(Jackman)*. [Plate XV.]—This variety is quite dissimilar to all others which have been obtained, in the cupped form of its blossoms. The plant is of vigorous growth, and has ternate leaves, with broad cordate leaflets. The flowers consist of from four to six sepals, which are very downy externally, broad, concave, and overlapping, so as to form a flower of a cup-shaped figure, and about four inches across. The colour of the sepals is a clear soft grayish blue, the stamens being of a light-brown tint, with pale-coloured filaments. The flower-buds are deflexed and remarkably downy, and the plant is a free and continuous bloomer. There is a coloured figure in the *Floral Magazine* (t. 370).

C. Lady Camden *(Cripps)*.—In habit, growth, foliage, and inflorescence, this belongs to the lanuginosa type, its flowers being white, shaded with lilac, and with a deeper-tinted bar.

C. Lady Caroline Nevill *(Cripps)*.—A remarkably fine variety, of the lanuginosa type. The leaves are simple or ternate, with large broad cordate leaflets; and the flowers, which usually consist of six sepals, are large and very effective, the individual blossoms measuring as much as seven inches across. The colour is a soft French-white, with a mauve-coloured stripe running down the centre of each sepal; and the anthers, whose filaments are white,

PLATE XV.—CLEMATIS LADY BOVILL.

THREE-FOURTHS NATURAL SIZE.

are of a pale reddish-brown hue. This variety was awarded a First-class Certificate at South Kensington in August, 1866. The plant produces its blossoms successionally through the summer and autumn months, a moderate number of flowers being produced at one time. It is, no doubt, one of the finest of the light-coloured sorts.

C. Lady Emma Talbot *(Noble)*.—This variety belongs to the patens race. It has ternate leaves, with large ovate-lanceolate leaflets. The flowers are large, five to six inches across, with eight elliptic-oblong sepals, white, tinted on the margins with very pale mauve; the stamens have white filaments, rosy-tinted towards the base of the anthers, which latter are of a chocolate-purple colour.

C. Lady Londesborough *(Noble)*.—One of the best of Mr. Noble's hybrids of the early-flowering Japanese race. The habit and foliage of the plant resemble those of *C. Standishii*, the leaves being ternate, with the leaflets narrowly ovate. The flowers, which average from five to six inches across, are eight-sepaled, and of a silver-gray colour, with a paler bar on each sepal, the white filaments just tipped with rose at the base of the chocolate-purple anthers. It is, like the other early bloomers, well adapted for cool conservatory decoration, and may be had in flower by March, if accelerated by slight artificial warmth. It was awarded a First-class Certificate by the Royal Horticultural Society in 1869. The figure given in the *Floral Magazine* (t. 495, fig. 4) is not very characteristic.

C. LADY MARIA MEADE *(Cripps)*.—This is one of the varieties of the lanuginosa type raised by Mr. Cripps, and is one of the freest bloomers of his set. The leaves, like those of *C. lanuginosa*, are simple or ternate, with broadly ovate leaflets; while the flowers are of a French-white ground-colour, with a deeper lilac bar on each sepal; they are not quite so large as those of *C. Lady Caroline Nevill*, but are even more freely produced, and altogether the variety is one of considerable merit.

C. LADY STRATFORD DE REDCLIFFE *(Jackman)*.—This is a novel variety of mixed type, apparently partaking somewhat of the characters of the Jackmanni group. It has pinnatisect leaves, with from five to seven leaflets, and as in the case of *C. florida*, there is a tendency in the leaflets to become three-parted; they are peculiar in shape, ovate, but very much drawn out into an attenuately acuminate point. The flowers are eight-sepaled, and measure fully six inches across, the sepals being broadly-elliptic, also with a drawn-out or acuminate point; they are of a delicate mauve colour, with a greenish tint in the central bar or rib, which is due to the more decided green of that portion of the outer surface which was exposed in the bud state. The anthers are chocolate-red, soon becoming grayish, and are attached by white filaments.

C. LANUGINOSA, *Lindley*. [Plate IV.]—This splendid species is the parent, more or less remote, of most of the fine hybrids which have been raised within the past ten years, and which have given the *Clematis* a claim to rank as one of the most noble and ornamental families of hardy climbers. It is a plant of

robust habit, and is clothed with bold leaves, which are either simple or ternate, the leaflets being of a cordate-acuminate outline. The flowers are erect and woolly in the bud, very large, of stout fleshy texture, measuring, in well-grown examples, as much as eight inches across, and composed of from five to six broadly ovate leathery sepals, overlapping so as to form a close, well-filled flower. The colour is a pale lavender or bluish-gray, and the anthers, seated on pallid filaments, form a central tuft of a pale reddish-brown hue.

To the exquisite beauty of this very showy plant may no doubt be attributed the popular favour with which the *Clematis* is regarded. Acting on the enthusiasm of cultivators, we may fairly assume the same cause to have led to those experiments in hybridization from which have resulted the splendid modern varieties which, while they compare with *C. lanuginosa* itself in regard to the size of their flowers, surpass it altogether as to productiveness, continuity, and succession of blossoms. Nothing, indeed, like the continuous flowering in masses characteristic of *C. Jackmanni* and its near allies, is ever seen in *C. lanuginosa* itself. It has been figured in Paxton's *Flower Garden* (iii., t. 94), and in the *Flore des Serres* (viii., t. 811), both figures representing the plant in a very imperfectly developed state; also in the *Illustration Horticole* (i., t. 14).

C. LANUGINOSA CANDIDA *(Lemoine)*.—As in the type of the species, the leaves of this fine and distinct variety are of a remarkably bold character, and

of a pale-green colour, being either simple, with large cordate acuminate blades, sometimes as much as six inches long and four inches broad, or else ternate, with leaflets of an ovate acuminate form. The flower-buds are erect and woolly, as in the type, while the flowers are very large, seven to eight inches across, composed of six to eight sepals of a delicately-tinted grayish white, becoming whiter after the flowers are fully expanded. It is of French origin, and is a hybrid between *C. lanuginosa* and *C. patens.* A coloured figure of this variety has been published in the *Floral Magazine* (t. 310). It is a free-growing variety, and the flowers are fine and effective.

C. LANUGINOSA NIVEA *(Lemoine).*—In this variety of *C. lanuginosa,* which comes from the same source as *C. lanuginosa candida,* the leaves are simple or ternate: when simple, of a cordate abruptly acuminate form; when ternate, made up of cordate-ovate leaflets. The flowers have from six to eight narrowish sepals, which are of a pure white, set off by a central tuft of stamens, the anthers of which are just tinted with pale brown. The plant is not so vigorous in habit as *C. lanuginosa candida,* though an equally free flowerer, but the blossoms though smaller are purer in tint than in that variety. It is of hybrid origin, having been the result of a cross between *C. lanuginosa* and *C. patens.*

C. LANUGINOSA PALLIDA *(Hort.).*—When *C. lanuginosa* was introduced into this country from Japan, it was accompanied by two other forms, to which the names of *C. lanuginosa pallida* and *C. lanuginosa longi-*

petala were applied. These, however, proved to be so nearly resembling the typical form, that they have gradually passed out of general cultivation as separate objects. *C. lanuginosa pallida* had the flowers of a somewhat paler blue colour, but larger in size than the original type, a figure published in the *Flore des Serres* (xi., t. 1176-7) from a specimen cultivated by M. Van Houtte, being represented and described as measuring ten inches across. As there is so little difference in the colour of the varieties, it is probable that this large-flowered form has in many cases supplanted the smaller one; while from the fact of many seedling plants of *C. lanuginosa* being distributed under that name, it is also probable that slight degrees of difference may occasionally be met with.

C. LASIANTHA.—See *C. angustifolia.*

C. LATHYRIFOLIA, *Besser.*—A showy hardy herbaceous perennial, with stems growing from three to four feet high, the pinnate leaves having the lower leaflets two or three-lobed, and the upper ones ovate-lanceolate, the former much longer-stalked than the latter, and giving the appearance of a bipinnate leaf. The flowers are freely produced, from June to August, in loose corymbose panicles, and are white, composed of four or five obovate sepals nearly an inch long. When well established it forms a showy plant of its class, and is well worth planting in a mixed border. Its native country seems doubtful. A good coloured figure is given in the *Botanical Register* (1839, t. 61).

C. LAWSONIANA *(Anderson-Henry).*—A hybrid variety, which, as we learn from the raiser, Mr.

Anderson-Henry, is a seedling of *C. lanuginosa* crossed with *C. Fortunei*, and is of vigorous habit, flowering profusely in succession from about August till November. The flowers are very large—occasionally they have been seen as much as nine and a half inches in diameter—consisting of from six to eight broad sepals, which are of a beautiful rosy-purple, slightly marked with darker veins. It would appear to be one of the finer varieties of the lanuginosa type.

C. LINEARILOBA, *De Candolle.*—A hardy or half-hardy herbaceous perennial growing about three feet high, with smooth pinnate leaves having the leaflets entire or trifid, with linear lobes. The flowers are erect, solitary, of a pale purple, with acute narrow sepals an inch and a half long, and are produced from May to July. It is a native of South Carolina, and is figured in Delessert's *Icones* (t. 4).

C. LORD DERBY *(Jackman).*—A free-growing and abundant-flowering variety of the patens type, having the usual ternate leaves, with ovate acute leaflets, but greater vigour of growth. The buds are large, erect, and woolly, and a good deal resemble those of *C. lanuginosa;* while the flowers, which are eight-sepaled and measure about five inches across, are of a similar tint of colour—a pale lavender or delicate bluish-mauve; the sepals are broadly obovate and very much overlapping, so that the flower is remarkable for its fulness; they are, indeed, unusually broad for those of varieties of this affinity. The anthers, which are of a reddish-purple, with white filaments red at the top, become grayish as the pollen is perfected and extruded.

C. Lord Henry Lennox *(Noble)*.—A variety of the patens type, possessing few distinctive marks. It has ternate leaves with ovate leaflets, and the flowers are mauve-coloured, of medium size, with purplish anthers attached by white filaments, which are rosy-tinted where they join the anthers.

C. Lord Londesborough *(Noble)*.—One of the finer of the hybrid varieties of the patens type raised from *C. Standishii* by Mr. Noble. As in the species just referred to, it has ternate foliage, with small ovate leaflets. The flowers are from five to six inches across, and consist of about eight sepals, the colour of which is a deep mauve or bluish-lilac, with a coppery-tinted purplish-red bar running down the centre of each; the filaments are white, red at the base of the anthers, which latter are chocolate-purple. They are produced in the spring months; in March if gently accelerated, in May if flowered naturally in the open air. As in all the early-blooming sorts, however, its chief value will be for cool conservatories or corridors, having the protection of glass. It was awarded a First-class Certificate by the Royal Horticultural Society, in 1870.

C. Lord Mayo *(Jackman)*.—This variety of the patens group first flowered in 1871. It is furnished with ternate leaves, having ovate acute leaflets, which on the young shoots are sometimes more or less deeply lobed. The flowers are about five inches across, and consist of eight elliptic-oblong sepals, which have a shortish apiculate apex, and are of a deep rosy-lilac colour, darker towards the base,

especially in the central bar, which is well marked throughout, but has a slight greenish tint towards the tip, which passes off as the flowers become fully expanded. The stamens have white filaments, and long deep chocolate-purple anthers. The flowers are sweet-scented, with a delicate odour between that of violets and primroses.

C. Lord Napier *(Noble)*.—One of the numerous varieties belonging to the group typified by *C. patens* and *C. Standishii*, and which produce their flowers in the early spring months. The habit of growth, and the foliage, resemble those of the other varieties of Mr. Noble's strain; while the flowers are large and full, eight-sepaled, the colour being a very deep mauve, with a reddish tinge in certain stages of development, and each sepal is marked with a paler mauve bar; the long chocolate-purple anthers are attached by white filaments, reddish at the top. It is figured in the *Floral Magazine* (t. 495, fig. 3), but not very correctly as to colour.

C. Lord Polwarth *(Jackman)*.—This variety appears to belong to the Jackmanni type. It has smallish pinnatisect leaves, with the leaflets lanceolate, conspicuously hairy, rugosely veined, and frequently becoming here and there ternately lobed. The flowers are of a dark motley violet, with red bars, and consist of from five to six sepals. The mottling of the colour is rather peculiar.

C. Louisa *(Siebold)*.—The habit and foliage of this variety of the patens group are the same as those of the type; but the flowers are of a pure white, with a

violet-coloured tuft of stamens. It was introduced from Japan by Dr. Von Siebold, and is figured in the *Flore des Serres* (x., t. 1052), the figure being, however, less than the natural size when well cultivated. It is rather a desirable variety of the older type.

C. LOUISA PLENA *(Simon-Louis).*—A variety of the patens group, resembling the others of the same section in growth and foliage. The flowers are large, white, regularly-formed, semi-double, and of a remarkably elegant character. It is one of the earlier of the new varieties raised by MM. Simon-Louis, of Plantières, near Metz.

C. LUCIE *(Simon-Louis).*—This variety has been but recently introduced to our gardens, by MM. Simon-Louis, by whom it has been raised. It belongs to the patens section, and is described by the introducers as having large flowers, of a fine showy character, the sepals being broad, rounded at the end, of a deep violet-purple shaded with carmine, a colour which is remarkably rich and difficult to describe; the edges of the sepals are of a beautiful blue, and the three-veined bar is of a brighter tint than the rest of the flower; the reddish-brown anthers with their white filaments form a central rosette which stands out with admirable effect in contrast with the deep colour of the sepals. The plant is said to be exceedingly floriferous.

C. LUCIE LEMOINE *(Lemoine).*—This variety is of French origin, having been obtained by M. Victor Lemoine, of Nancy, from *C. patens* crossed with *C.*

Fortunei. From the coloured figure and description distributed by the raiser, it would appear to have the ternate leaves and cordate-ovate leaflets of *C. lanuginosa*, and double flowers, which in form are said to most closely resemble those of the variety named *C. John Gould Veitch*, but to be still more double and symmetrical, the individual blossoms measuring four and a half to five inches across, being composed of from 75 to 90 sepals, and when fully expanded reminding one of a gigantic double-white *Zinnia;* they are quite white, and do not show the greenish tint which is seen in *C. Fortunei*, *C. candidissima plena*, and other double white sorts; the flowers are further set off by a compact tuft of primrose-coloured stamens. In the symmetry of its flowers, and the purity of the colour, we may look upon this variety as an advance upon existing kinds.

C. Luloni *(Hort.)*.—This is a variety of *C. patens*, raised about 1851 by M. Lulon, of Libourne. It was, at the time, said to be one of the most distinct and beautiful varieties of this type, but does not appear to have made way amongst cultivators.

C. Madame Isidore Salles *(Carré)*.—A handsome variety of the patens type, and raised from *C. Amalia*. The leaves, as is usual in this type of the genus, are ternate, while the flowers are as much as eight inches across, the sepals being white, edged with pale rose, contrasting with the anthers, which are of a dark or purplish hue.

C. Madame Van Houtte *(Cripps)*.—One of the fine Tunbridge Wells hybrids, with the general cha-

racteristics of *C. lanuginosa.* The leaves are simple or ternate, the leaflets being broad and cordate, while the flowers are remarkably fine in size and quality, white, suffused, on first opening, in the latter part of the season, with a bluish or mauve-coloured tint. It received a First-class Certificate at South Kensington in October, 1867.

C. MAGNIFICA *(Jackman).*—A very distinct and effective *Clematis*, from the strong contrast presented by the two rich colours of the flowers. It is a free-flowering variety, of the Jackmanni type as to its profusion and continuity of bloom. The leaves are pinnatisect, with the leaflets broadly ovate acuminate. The flowers are composed of from four to six, usually six, broad rounded sepals, giving them a fine form, and are of a rich purple suffused with crimson shading, the rich red tint being strongly marked in the three-ribbed bar which runs down each sepal, and this, again, strongly and effectively contrasting with the very pale brownish hue of the anthers. As in *C. Jackmanni*, the buds are deflexed and of a purplish hue on the outside. Though remarkably effective and well contrasted in colour, the flowers of this variety have not the same degree of refinement observable in some other sorts. A figure has appeared in the *Floral Magazine* (t. 453), which presents the colours somewhat too vivid, and too sharply defined.

C. MAIDEN'S BLUSH *(Jackman).*—A remarkably large-flowered and also a free-growing variety of the patens group, which first flowered in 1871. It has the usual ternate leaves, the leaflets being ovate and

acute. The flowers are fully six inches across, and consist of eight broadly-elliptic overlapping shortly apiculate sepals, which are of a delicate blush-white colour, having a stronger tint of bright rosy-lilac at the base of the bar, the latter being marked by a creamy stain which partially bleaches out, and through which the rosy-lilac veins are evident. The staminal tuft is rather small for the size of the flower, the filaments being white, tipped with rose, and the anthers of the usual chocolate-purple colour. The blossoms are delicately scented with the perfume of violets and primroses.

C. Marie *(Simon-Louis)*.—This fine variety belongs to the patens section, and has the habit and foliage of that species. The flowers are of good form, of a rich purplish-blue passing to deep blue, with which the white stamens stand out in striking contrast. It is of Continental origin, having been raised by MM. Simon-Louis, of Plantières, near Metz.

C. Marie Lefebvre *(Cripps)*.—This vigorous-growing variety resembles *C. Lady Caroline Nevill* in its general character, but it is of a somewhat more freely-blooming habit, with sepals more pointed, and of a darker shade of colour. The leaves are simple or ternate, with ovate cordate leaflets. The flowers are about eight inches across, and consist of eight broadly oblong-ovate acuminate sepals, which are of a delicate or pale silvery mauve, with a deeper mauve-coloured bar, and the stamens have white filaments and pale brown anthers. This variety is said to be sweet-scented, the scent being evident

at night. A First-class Certificate was granted to it, at South Kensington, in October, 1867.

C. MARITIMA, *Linnæus.*—An erect-habited herbaceous European species, growing from three to four feet in height, furnished with pinnatisect leaves which have the leaflets lanceolate, and producing loose corymbs of white flowers larger than those of *C. erecta*, and composed of several spathulate sepals. As a garden plant, it will be superseded by the variety to be next referred to.

C. MARITIMA PLENA *(Billiard).*—A fine ornamental hardy herbaceous perennial, with the general habit, aspect, and foliage of the type. The flowers differ in being semi-double; they are pure white, and disposed in broad paniculate masses at the terminations of the stems. It was raised in the nursery of M. Billiard, at Fontenay-aux-Roses, and is said to be remarkably effective in its flowering season—June.

C. MARMORATA *(Jackman).* [Plate I., fig. 2.]—This pretty variety has the habit of *C. Viticella venosa*, and flowers both profusely and successively. The leaves are pinnatisect, the basal pinnæ being ternate. The flower-buds are drooping, and the flowers nearly the size of those of *C. V. venosa*, composed of four remarkably broad sepals, of a light mauve-colour, marked with a three-ribbed bar, the whole surface of the flowers being speckled with white, in such a manner as to give it a veiny or marbled appearance. It is a very distinct and desirable variety, and is faithfully represented in the figure above referred to. The sepals are strongly recurved, which gives a distinct character to the flowers.

C. Marquis of Salisbury *(Jackman)*.—This is a free-growing and exceedingly promising variety, apparently belonging to the Jackmanni type. The leaves are pinnatisect, having ovate-lanceolate much acuminated hairy leaflets, which are sometimes ternately divided. The flowers are of a fine dark plum-colour, remarkable for their rich velvety surface, and consist of about six sepals, which are broad and overlapping. Its richness and depth of colour are remarkable.

C. Miss Bateman *(Noble)*.—This is one of the most charming of the hybrids of the *C. Standishii* strain, bred by Mr. Noble. As in the other varieties of similar origin, the leaves are ternate, with ovate leaflets. The flowers are of full form, and usually have about eight broadly-elliptic or ovate sepals, with a short acuminate point; they are somewhat fragrant, and about six inches across when finely developed, of a pure white, tinted down each of the sepals by a cream-coloured bar, which bleaches out as the blossoms gain age, so that the fully matured flowers are wholly white; the anthers are chocolate-red, with the filaments white, tinted with rose at the tip. Owing to its delicate colour, it is still more suitable than the darker varieties of the same type for cultivation under glass, though, as in their case also, the plants are perfectly hardy. It does not, however, require more than the shelter of a glass roof, unless it may be desired to accelerate the period of its blossoming. It was awarded a First-class Certificate in 1869 at one of the Royal Horticultural

Society's meetings. A figure of it appears in the *Floral Magazine* (t. 495, fig. 1).

C. MODESTA *(Modeste-Guérin)*.—One of the hybrids obtained between *C. lanuginosa* and *C. Viticella*, and partaking of the free-growing and free-flowering character manifested by most of the varieties of this cross. It has pinnatisect leaves, with bold ovate leaflets, and the flowers are comparatively large and expanded, of a fine form, and of a bright blue, veined with deeper blue along the centre of the sepals. It is rather a pretty plant, partaking a good deal of the character of *C. Viticella* as to growth and blooming properties, but having the flowers quite expanded.

C. MONGOLICA.—See *C. tubulosa.*

C. MONSTROSA *(Van Houtte)*.—Though having the habit and general character of *C. patens* as regards stem and leaf, this ornamental Japanese variety is very distinct in the flowers, which are white and semi-double, composed of numerous lanceolate sepals, which are sharp-pointed at the apex, tapered to the base, and disposed in three or four series, having a tuft of yellow stamens in the centre. Beneath the flower, sometimes at a distance from it, is usually developed a whorl of stalked simple or ternate leaves, forming a kind of involucre, and these leaves are sometimes more or less coloured. The flowers are often large and massive. This variety bears considerable resemblance to *C. Fortunei*, but its leaves have narrower leaflets, that variety belonging to the lanuginosa group. It is figured in the *Flore des Serres* (ix., t. 960), but the figure, though a fair general repre-

sentation, is wanting, both as regards size and doubleness, to convey a true idea of the flower. Dr. Von Siebold, by whom it was introduced, called it *C. bicolor monstrosa.*

C. MONTANA, *Buchanan.* [Plate VIII.]—A remarkably free-growing and exceedingly ornamental hardy Indian climber, well adapted for training over walls or trellises where a considerable extent requires to be covered. In fact, the more freely the plant is allowed to grow the more ornamental it becomes, on account of the greater profusion of blossoms produced when well established; it will grow from twenty to thirty feet in a season, while every joint will bear blossoms as white as snow, in wreaths from ten to twenty feet long. The leaves are ternate, with oblong-acuminate incisely-toothed leaflets. The blossoms are so copiously produced, several springing from each axil, that the branches literally become converted into floral garlands. The flowers, moreover, are sweet-scented, and consist of four spreading elliptic-oblong sepals, each about an inch long, bearing considerable resemblance to those of a wood anemone; they are white, with a dash of pink, and have a conspicuous tuft of straw-coloured stamens. It sometimes receives the name of *C. odorata*, from its sweet-scented flowers, which are produced in May; and it has also been called *C. anemoniflora*, from the resemblance borne by its flowers to those of the wild anemone. This plant requires that its well-ripened young wood should be trained in at full length, as the blossoms are produced from the shoots of the previous season. It is well

figured in Sweet's *British Flower Garden* (2 ser., t. 253), and in the *Botanical Register* (1840, t. 53), besides which there is a beautiful plate in Wallich's *Plantæ Asiaticæ Rariores* (t. 217). A variety called *grandiflora*, with flowers twice the size of the original, has also been introduced by Messrs. Veitch and Son, and figured in the *Botanical Magazine* (t. 4061).

Mrs. Howard Vyse *(Noble)*.—A distinct and handsome variety of the patens type, the slender stems furnished with ternate or sometimes biternately divided leaves, in which respect it approaches the florida section. The flowers are flatly expanded and of medium size, consisting of eight oblong elliptic sepals, which are white, slightly but distinctly tinted with mauve along the margins; the stamens have white filaments, and pale purplish anthers. It is a desirable variety for general culture.

C. Mrs. James Bateman *(Jackman)*. [Plate II., fig. 1.]—Though not producing the profuse continuous mass of flowers characteristic of the Jackmanni type, this variety is nevertheless a free and successional bloomer, continuing throughout the season to yield an abundant crop of its showy blossoms. It originated from some of the seedlings of the Jackmanni group once more crossed with *C. lanuginosa*, and produces bold ternate leaves, with large broad cordate acuminate leaflets, the blossom-buds being erect and woolly. The flowers have, for the most part, six sepals, and when they first open are of a deep reddish lilac, this colour passing off to a pale lavender, as the flowers become older; the tuft of stamens is con-

spicuous, the anthers being slightly tinted with reddish lilac. The illustration gives a good idea of the appearance of this beautiful variety.

C. Mrs. Villiers Lister *(Noble)*.—A charming hybrid variety of the patens type, the plant as regards habit and foliage corresponding with the other varieties of the same strain. The flowers are large, eight-sepaled, and of full outline, white, the median bar being tinted at the base with pale rosy-lilac, sometimes fading off, so that the upper half is entirely white. A very fair figure of it is given in the *Floral Magazine* (t. 495, fig. 2).

C. Mrs. Moore *(Jackman)*.—A robust-growing variety of intermediate character, belonging apparently to the Jackmanni group. The leaves are pinnatisect, with rather large ovate leaflets, which are strongly acuminated, and sometimes as much as four and a half inches long. The flowers are remarkable, among the midseason varieties, for their amplitude, since they measure as much as from eight to nine inches across, and both as regards size and form have a close resemblance to those of *C. Thomas Moore*. The sepals, six in number, are oblong-elliptic and acuminate, nearly three inches long, white, showing in the young state a slight mauve shade along the bar. The anthers are bold and pale-coloured, the filaments white with a slightish green tinge, the anthers as long as the filaments, pale or whity-brown. It is the finest of all the early summer-flowering white varieties, and flowered for the first time in 1871.

C. Mrs. Nasmyth *(Cripps)*.—This variety belongs

to the group typified by *C. lanuginosa*, which it resembles in growth, foliage, and inflorescence, the flowers individually being large, and of a pure white, with yellow anthers.

C. OCHROLEUCA, *Aiton.*—One of the herbaceous perennial species, a native of North America. It grows from one to two feet high, and has entire ovate silky-haired leaves, and nearly erect solitary cream-coloured flowers, yellowish within, produced in July and August. As a garden plant it is of little importance. A figure is given in Loddiges' *Botanical Cabinet* (t. 661).

C. ODORATA.—See *C. montana.*

C. ORIENTALIS, *Linnæus.*—This plant, which has been figured under the false name of *C. graveolens*, is sometimes called *C. flava.* It is a remarkably free-growing and hardy species, attaining a height of fifteen feet, much branched though slender in habit, the stems clothed with smooth biternate or triternate leaves, the ultimate leaflets of which are glaucous beneath, three-parted or trilobed, with small ovate entire or inciso-serrate divisions. The flowers though solitary are freely produced during August and September, at the ends of the branches and their ramifications, and consist of four blunt oblong spreading sepals, which are tomentose on the inner surface, apiculate behind, of a pale clear yellow colour, the stamens being of a pale greenish yellow. Though not showy, yet from the profusion in which the flowers are produced, the plant forms a pretty object as a slender fast-growing elegant-leaved climber. We

have noticed that the newly ripened seeds of this species germinate very rapidly and freely. It has been figured in the *Botanical Magazine* (t. 4495), under the erroneous name of *C. graveolens*, and the figure has been copied into the *Flore des Serres* (vi., t. 548), under the same name. The plant is also represented by Dillenius in *Hortus Elthamensis* (t. 119). The *C. glauca* of Willdenow, figured in *Berlinische Baumzucht* (t. 4, fig. 1), which is said to be in cultivation, but which we have not met with, is probably a blunt-leaved variety.

C. ORNATA *(Lemoine)*.—This variety, which is of Continental origin, has ternate leaves, with ovate-acuminate leaflets. The flowers, which we have not seen, are said to be well formed, with stout broad sepals, which are violet, suffused with a bronzy tint, and having a deeper-coloured bar along their centre. According to MM. Simon-Louis, it belongs to the same group as their *C. splendida*, which is represented by our Jackmanni type.

C. OTTO FRŒBEL *(Lemoine)*.—This splendid variety is of a very robust habit, and furnished with simple or ternate leathery leaves, the leaflets being of a broad ovate acuminate form. The flower-buds are woolly and erect, and the flowers themselves, which are of a stout fleshy texture, acquire a very large size, being said to measure nearly nine inches across; they are of a grayish-tinted or French-white, the tinting being described as passing to an azure-rosy-lilac, and as they become older taking on more of the azure tint; they have eight blunt and broad sepals, which

are imbricated so as to form a close full flower, with a central tuft of brownish anthers. It appears to be one of the largest-flowered and finest varieties yet obtained; and is described as flowering a second time in August and September, probably therefore having the same habit as *C. lanuginosa*, which was one of its parents. We learn from M. Lemoine, that it was produced from *C. lanuginosa* fertilized by *C. patens*.

C. PANICULATA, *Thunberg*.—A Japanese climbing shrub, with pinnately decompound leaves, and axillary panicles of white sweet-scented flowers resembling those of *C. Flammula*, and produced in July and August. The *C. Vitalba japonica* of Houttuyn's *Pflanzensystem* (vii., 309, fig. 2) represents this plant, which is probably a mere variety of *C. Flammula*, and is possibly not now to be met with in gardens.

C. PATENS, *Morren* and *Decaisne*. [Plate III.]—This species, which is also called *C. azurea* and *C. cœrulea grandiflora*, may be taken as the type of the spring-flowering Clematises, which, though perfectly hardy, flower at so early a period that they are especially useful for conservatory and spring out-door decoration. Like its allies, it is more slender in growth than *C. lanuginosa*, and has smaller and narrower leaves. These are ternate, with ovate-acuminate leaflets, the terminal one sometimes becoming three-parted. The flowers consist of about eight spreading sepals of a delicate mauve-lilac colour, with a central tuft of purplish stamens. In the patens group of varieties, the divisions both of the leaves and of the flowers, are narrower than the same parts

in the lanuginosa group. This plant, M. Leroy says, should be grown on a northern exposure, to preserve the delicate colour of its flowers. It is figured under the name of *C. cærulea* in the *Botanical Register* (t. 1955), in Maund's *Botanist* (t. 126), and in Paxton's *Magazine of Botany* (iv., 193), in which the figure is indifferent. An excellent figure of a large-flowered form is also given in the *Botanical Magazine* (t. 3983), under the name of *C. cærulea grandiflora.*

C. PATENS AMETHYSTINA PLENA *(Lemoine).*—A variety of the patens group, and resembling that plant in habit and foliage. The flowers are loose, double, and of a French-white colour. It must now be ranked amongst the varieties of second-class merit.

C. PATENS FLORIBUNDA *(Lemoine).*—This variety, which was raised by M. Lemoine, of Nancy, has ternate leaves, with short ovate leaflets. It is remarkably free-flowering, blooming abundantly alike on young and old plants, the blossoms being of good form, and consisting of about eight broad regular sepals, of a rosy-tinted French-white, or white suffused with pale rosy-lilac, the anthers being sulphur-coloured. Its profuseness of flowering is said to be astonishing.

C. PATENS VIOLACEA *(Hort.).*—This variety was, as we learn from M. Dauvesse, received by him from MM. Thibaut and Keteleer, in 1862. It belongs to the patens group, and has the leaves ternate, with the leaflets long and pointed. The flowers are large, and the colour of the sepals a purplish-lilac.

C. PERFECTA *(Simon-Louis).*—This is a variety of the lanuginosa type, with simple or ternate leaves,

the leaflets being cordate-ovate and acuminate. The flowers are six to eight-sepaled, of rather large size, French-white bleaching to pure white, the stamens having white filaments and pale yellowish anthers; the sepals are broadly ovate and apiculate, forming a full and handsome flower. It bears a close resemblance to the many pale-flowered varieties of *C. lanuginosa*, which have orginated on the Continent.

C. Prince of Wales *(Jackman)*.—This is one of the Woking hybrids of the true Jackmanni type, that is, free and continuously successional in flowering. It resembles *C. rubro-violacea*, one of the first of the Woking brood which was distributed, of which it may be regarded as an improvement. The leaves are pinnatisect, with five leaflets (three in the less developed condition of the plant) which are large, and of a bold cordate outline. The flowers are of a deep pucy-purple, with a dark red-tinted bar in the centre of each of the broadly oval apiculate sepals, four to six in number, while the central tuft of stamens appears greenish, from the green colour of their filaments. It is a fine showy variety, differing from *C. Jackmanni* in the shade of colour in the flowers, and was awarded a First-class Certificate at South Kensington in June, 1865.

C. Princess Louise *(Jackman)*.—A variety of moderately vigorous habit, belonging apparently to the Jackmanni type. The leaves are pinnatisect, with elongate ovate leaflets, which are sometimes divided. The flowers are large and showy, consisting of from six to seven long narrowish sepals, which

are of a bluish-lilac, and have a reddish stain at the base of the bar; the central staminal tuft being pale-coloured or greenish.

C. PRINCESS MARY *(Noble)*.—This is one of the hybrid varieties of the patens type, bred from *C. Standishii*, and *C. Fortunei*, and like others of the same origin, possesses free-blooming and early-flowering properties, which renders it better adapted for culture under glass or in sheltered places, than in others more exposed, though the plants are perfectly hardy. The leaves are ternate, with ovate leaflets; and the flowers, which are neatly formed, and composed of about eight elliptic sepals, are of a pleasing delicate shade of pale pink, with a whitish bar down the centre of each sepal; the anthers, which are rather conspicuous, and have white filaments, rosy at the tip, being of a brownish or chocolate-purple colour. An excellent figure of this variety is given in the *Florist and Pomologist* (1870, 121).

C. PULCHERRIMA *(Cripps)*.—One of the many forms allied to *C. lanuginosa*. The habit of growth and the character of the foliage resemble those of that species, but the flowers are very large, white, with a pale lavender bar on each sepal, in the way of those of *C. Marie Lefebvre*.

C. PURPUREA HYBRIDA *(Modeste-Guérin)*.—This variety is a hybrid of the *Viticella* section, and in habit and foliage resembles the hybrids of the Jackmanni type. The flowers are often from four to six inches in diameter, of good form, and consist of from four to six sepals, their colour being a deep

purplish violet, less rich and velvety than in *C. Jackmanni*, having red veins (not a red bar) running through the sepals; and they are freely produced, and successional.

C. QUEEN GUINEVERE *(Noble)*.—A variety of the patens type, and one of the batch raised by Mr. Noble. The leaves are ternate; and the flowers, which consist of eight elliptic-oblong blunt mucronate sepals, are white, with a slight creamy tinge, and have a conspicuous tuft of stamens, of which the filaments are short, white, rosy-red towards the tip, where they join the long chocolate-purple anthers. It differs from *C. Miss Bateman* chiefly in the more oblong outline of its sepals.

C. REGINÆ *(Anderson-Henry)*.—This fine hybrid, raised from *C. patens (azurea grandiflora)*, fertilized with *C. lanuginosa*, was obtained by Isaac Anderson-Henry, Esq., by whom cut flowers, which received a Second-class Certificate, were shown at South Kensington in 1862. The habit is vigorous, and the leaves ternate, with ovate acuminate leaflets, glossy beneath, and remarkable for their healthy clear green colour. The flowers are large, and consist of from six to eight broadly oval sepals of a deep mauve or lavender-blue, contrasting well with the pale cinnamon-coloured anthers. The plant blossoms in May and June, and successionally produces occasional flowers during August and September. There is considerable resemblance between the flowers of this variety, and those of *C. Gem*, but in the present kind the anthers are of a paler brown colour. The figure of

this variety published in the *Floral Magazine* (t. 175) gives little idea of its beauty.

C. RENAULTII CŒRULEA GRANDIFLORA *(Dauvesse)*.—This is a very hardy and very handsome hybrid, raised by M. Dauvesse, from *C. Viticella venosa*, probably crossed with *C. lanuginosa*, and having the general habit and foliage of the Jackmanni group. The flowers are large, abundant, and successional, having well-rounded sepals of a beautiful violet-blue, with the central bar of a purplish-rose, the stamens, which are of a rosy hue, forming a conspicuous central tuft. It appears to be much esteemed in the Continental collections, and as we learn from M. Dauvesse, flowers very freely in the spring, and still more abundantly in the autumn, continuing on until arrested by frost.

C. RENDATLERII *(Carré)*.—This is a fine variety of the patens type, and was raised from *C. Helena*, and which, according to MM. Carré, it surpasses in hardiness, as well as in the form of its flowers, which are about eight inches across, the sepals being of a pure white, and the anthers yellow.

C. RETICULATA, *Walter*.—There seems to have been some confusion in respect to this plant, which is a slender climbing species, growing from four to six feet high, furnished with pinnate leaves, having cordate-ovate leaflets, and bearing solitary flowers having coriaceous connivent sepals, recurved at the tips and somewhat crispy at the margin, forming nodding bell-shaped flowers, which appear about June and July. It is the same as *C. Simsii*, which is figured

in the *Botanical Magazine* (t. 1892) under the name of *C. crispa*, and which appears to be identical with the *C. cordata* of the same work (t. 1816).

C. RUBELLA *(Jackman)*. [Plate I., fig. 1.]—This is one of the finest of the Woking hybrids, having the same abundantly and continuously flowering habit as *C. Jackmanni*, and forming a fine companion to that splendid variety. The leaves are pinnatisect, with the segments ovate. The flowers are about seven inches across, very commonly six-sepaled, though varying with the sepals from four to six in number; the colour is a deep velvety claret, the rich reddish flush giving it a very distinct appearance from that of *C. Jackmanni*, while the tuft of greenish stamens in the centre forms a pretty contrast with the colour of the sepals. The lustrous reddish hue is observable in *C. rubro-violacea*, *Prince of Wales*, and *rubella*, but is most decided in the latter, which we regard as one of the finest of the series, and one which will always give satisfaction. In all these varieties belonging to the true Jackmanni cross, the habit is to keep continually throwing out lateral growths, and these axillary growths yield successive crops of flowers; so that while the abundance of blossoms is such as to give broad masses of the richest colouring, the succession of flowers is unbroken from the beginning of July, when the plants first come into flower for the season, until October, or even later, when frosts arrest further development. To secure this profusion and succession of blossoms, however, the highest culture is essential, and this, indeed, is only reasonable, in order to keep up the

strength of the plants. *C. rubella* gained a First-class Certificate at South Kensington in June, 1865, and has been very well figured in the *Floral Magazine* (t. 311).

C. RUBRO-VIOLACEA *(Jackman)*.—This is one of the earliest distributed of the Woking batch of hybrids, and has all the characteristics of the group as regards the profusion of flowers, and the successional continuity of their development. It has pinnatisect leaves, with ovate-acuminate, or in some instances ovate-lanceolate leaflets. The flowers are from four to six-sepaled, maroon-purple, flushed with reddish violet, the surface being very rich and lustrous, and a tuft of greenish stamens occupying the centre. This variety most nearly resembles that called *Prince of Wales*, but the tint of the flowers is somewhat deeper. It gained a First-class Certificate at South Kensington in August, 1863. A coloured figure appeared in the *Florist and Pomologist* (1864, 265); and it has been subsequently figured in the *Flore des Serres* (xvi., t. 1630-1); and in the *Floral Magazine* (t. 215).

C. SENSATION *(Cripps)*.—One of the fine Tunbridge Wells varieties belonging to the lanuginosa group. The leaves are simple or ternate, with cordate leaflets. The flowers are very large and showy, measuring six inches across, composed of six or seven sepals, of a pale grayish blue, resembling those of *C. reginæ*, but somewhat lighter and with a tint of mauve; the anthers are of a light-brown colour. It gained a First-class Certificate at South Kensington, in October, 1867.

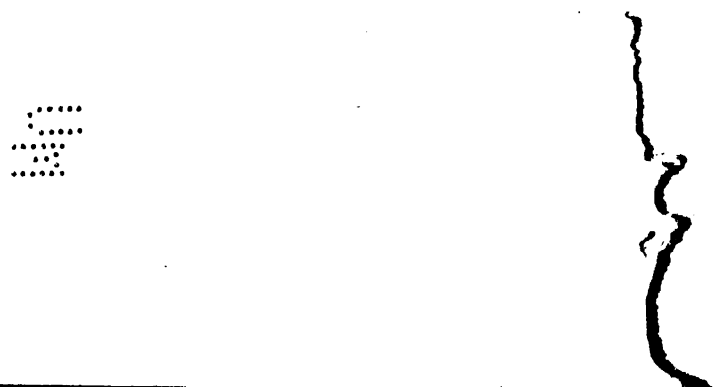

PLATE XVI.—CLEMATIS SIEBOLDII.

C. SHILLINGII.—See *C. crispa.*

C. SIEBOLDII, *Don.* [Plate XVI.]—Compared with other hardy species of this genus, *C. Sieboldii* is of slender though free-growing habit; in this respect, indeed, it resembles *C. florida*, of which it is, no doubt, botanically considered, a variety, differing chiefly in the very prominent purple centre of its flowers: indeed by some authorities it has been named *C. florida bicolor.* It forms a very elegant plant for a wall or trellis, or to introduce as a climber into any cool plant-house. The flowers when at their full development are biternate, that is, with the terminal and two lateral leaflets, each divided into three segments, which are small and ovate-acuminate in outline, and either entire or toothed at the margin. The flower-buds are erect and green; and the flowers, which are produced from July to September, are composed of six ovate sepals of a creamy-white colour, which form a fine background for the large rosette of purple petaloid stamens which occupy the centre, and render the flowers particularly attractive. In the earlier stages of the development of the flower, the middle portion of the rosette, which consists of the more perfectly-formed stamens, is of a greenish hue. The plant is a native of Japan, whence it was introduced by Mr. Low in 1837. There is a good coloured figure of it in Sweet's *British Flower Garden* (iv., t. 396). It is also figured in the *Flore des Serres* (v., t. 487); in Maund's *Botanist* (t. 241); in the *Botanical Register* (1838, t. 25); and in Paxton's *Magazine of Botany* (iv., 147), the latter figure scarcely giving sufficient prominence to the central tuft of abortive filaments and styles.

C. Simsii.—See *C. reticulata.*

C. Sir Robert Napier *(Jackman).*—This variety, which was awarded a First-class Certificate at South Kensington in July, 1868, was raised at the Woking Nursery, and has foliage of the lanuginosa type, being simple or ternate, with broad ovate leaflets. The flowers are of a deep rich purple, with a bar of deeper purple on each of the six broad sepals of which it is composed. Its growth is less robust than that of *C. Mrs. James Bateman,* which variety it resembles in regard to its blooming habit.

C. Sophia *(Siebold).*—A dark-coloured variety of *C. patens,* of Japanese origin, introduced by the indefatigable Von Siebold, and one of the earlier of the varieties of this type obtained for our gardens. It has the same habit as the typical form of *C. patens,* and is also similar to it in regard to foliage and size of flower, but differs in the sepals being of a deep lilac-purple at the edges, blending gradually into the pale greenish straw-colour of the bar which marks the centre of each; the stamens are deep violet. The figure in *Flores des Serres* (viii., t. 852), shows the bar much greener than in the natural state. It is also figured in the *Illustration Horticole* (i., t., 21), and in the *Belgique Horticole* (iv. 97).

C. Sophia plena *(Siebold).*—This variety, which was introduced directly from Japan by M. Von Siebold, differs from *C. Sophia* chiefly in the circumstance that the flowers are semidouble, their colouring being similar to that of *C. Sophia.* Hence it bears some analogy to the sort called *C. John Gould Veitch,*

but the flowers are larger than those of that variety, and of a looser form. A figure is given in the *Illustration Horticole* (v., t. 184).

C. SPLENDIDA *(Simon-Louis)*.—A free-flowering late variety, closely resembling *C. rubro-violacea*, not only as to habit, but also in respect to foliage and flowers. The latter are composed of four or five sepals, of a roundish oval mucronate form, and of a velvety dark reddish or maroon-purple colour, thus becoming large, bold, and effective. It is of Continental origin, having been raised in 1861 by MM. Simon-Louis, of Metz, and thus was one of the earliest of the dark-coloured hybrids which have found their way into cultivation. It was obtained by crossing *C. lanuginosa* with *C. Viticella grandiflora*. A coloured figure has been published in the *Revue Horticole* (1865, 70). It is sometimes called *C. splendens*.

C. STANDISHII, *Moore*.—A handsome spring-flowering *Clematis* introduced from Japan, and one of the parents of many of the new varieties produced during the last few years. It is of a somewhat slender habit of growth, resembling *C. patens* both in this respect, and in regard to the foliage. The leaves are ternate, with small ovate, somewhat acuminate leaflets, and the flowers, which are finely formed, and consist of about eight elliptic mucronately-pointed sepals, are of a pretty light mauve-purple colour, with a metallic lustre which considerably enhances their beauty; they are about five inches in diameter, and are produced, as in the other early-blooming sorts, from the well-ripened wood of the previous season. It can be

used effectively where spring flowers are required in beds, if the situation is such that the summer shoots can be retained. The plants are remarkably free-flowering, and it may be regarded as one of the most beautiful types of the genus, no less for the profusion of its flowers than for the richness of its colouring. An indifferent figure, too small in size and false in colour, occurs in the *Floral Magazine* (t. 153), thence copied into the *Belgique Horticole* (xiv., t. 3).

C. STANS, *Siebold and Zuccarini.*—A dwarf half-shrubby Japanese species, growing about two feet high. The stems are erect, but non-climbing; the leaves opposite and ternate, with large pubescent coarsely-toothed subtrilobate leaflets; and the small nodding tubulose flowers, clothed with white tomentum on the outer surface, and collected into spare racemose panicles at the apex of the stem. It is of little importance from a decorative point of view.

C. STAR OF INDIA *(Cripps).*—A showy variety, having the free-flowering habit of the Jackmanni type. The leaves are ternate; and the flowers, which are about five inches across, are at first of a reddish plum-colour, changing to violet-purple, the bars in the centre of each of the sepals—four to six in number—being of a Turkey-red, giving the appearance of a central band or stripe. It is a showy variety of considerable merit, and was awarded a First-class Certificate at South Kensington in October, 1867.

C. STELLA *(Jackman).*—This belongs to the patens group, and produced flowers for the first time in

1871. It is of free growth, and has ternate leaves, with broadly ovate acute or acuminate leaflets. The flowers, which measure about five inches across, are of a light violet or deep mauve, with a distinct bar in the centre of each sepal of a deep reddish plum-colour; the sepals are eight in number, elliptic, overlapping so as to make up a close well-formed flower, of which the centre is occupied by a large tuft of stamens, having white filaments and long chocolate-purple anthers. The well-defined band down the centre of each sepal, giving the appearance of a star, renders this variety very attractive and ornamental. The flowers are delicately scented with a perfume resembling that of the wild primrose.

C. SYLPH *(Cripps).*—This variety belongs to the early-blooming or patens race, and has large flowers of a bold and striking character, which are white, with a slight tinge of mauve-colour on the exterior of the sepals. It is a handsome variety, and was awarded a First-class Certificate at the meeting of the Royal Horticultural Society in June, 1870.

C. SYMESIANA *(Anderson-Henry).*—A fine hybrid raised by Mr. Anderson-Henry, and placed in the hands of the Messrs. Lawson and Sons. It is of the race of *C. lanuginosa*, having been raised by crossing that species with *C. Fortunei*, and like its parent bears very large flowers in succession from August (probably July in the South) till November. The flowers are from seven to eight inches in diameter, and consist of from six to eight broad sepals, which are of a beautiful shade of pale mauve or lavender-colour. It is said to be a profuse bloomer.

C. The Queen *(Jackman)*.—This variety of the patens group is of very free habit, and remarkable for its handsome foliage, and bold well-filled flowers. It blossomed for the first time in 1871. The leaves are ternate, with broad ovate, smooth and well-formed leaflets. The flowers consist of eight broadly elliptic acuminate sepals which are much overlapping, and being of a delicate lavender or mauve-lilac tint, they have much the appearance of moderate-sized blossoms of *C. lanuginosa*. The flowers are strongly primrose-scented, especially when under the influence of sun-heat; and have a conspicuous tuft of stamens, the filaments of which are white, and the long anthers chocolate-purple, with a reddish tinge at their base. The flowers measure about six inches across, and have a slight tendency to reflex. It is peculiar amongst the early-flowering sorts, for its resemblance to *C. lanuginosa*, both in the form of the foliage, and in the colouring and bold character of the flowers.

C. Thomas Moore *(Jackman)*.—This is one of the finest of the Woking hybrids, the flowers being of a bold and well-contrasted character, and the plants of a vigorous habit. The leaves are large, and pinnatisect, with ovate leaflets which are much acuminate. The flowers have from four to six narrowish sepals, and are very large, amongst the largest indeed of the purple-flowered sorts, being often as much as from eight to nine inches across, of a deep rich pucy-violet, and having a very prominent tuft of white stamens, which give to them something the appearance of giant passion-flowers. The buds are long, dull dark purple, and erect, and the sepals when extended are rather elliptic

PLATE XVII.—CLEMATIS TUBULOSA.

than ovate. The flowers are produced in successional and copious masses, though not quite so abundantly as those of the true Jackmanni type; but their large size, and the fine contrast between the sepals and the stamens, entitle it to take a place in the front rank of ornamental modern varieties. Its merit was marked by the award of a First-class Certificate at South Kensington, in August, 1867; and an excellent figure of it, necessarily much foreshortened on account of its size, will be found in the *Florist and Pomologist* (1869, 265).

C. TUBULOSA, *Turczaninow.* [Plate XVII.]—A stout-growing herbaceous perennial, with stiff erect slightly branched stems, somewhat woody at the base, bearing large long-stalked ternate bright-green leaves, the leaflets of which are rhombeo-ovate and mucronately-toothed, the middle one being largest. The flowers are numerous, in terminal and axillary corymbs, and individually bear considerable resemblance to those of a single blue hyacinth; they, however, consist of four distinct sepals recurved at the top, and so closely convergent for the greater part of their length that the blossoms appear tubular; the colour is a bluish-purple, and they are freely produced in August and September. A coloured figure, not very characteristic, is given in the *Botanical Magazine* (t. 4269); that in Paxton's *Magazine of Botany* (xiv., 31) is better. An excellent wood-cut figure, here reproduced through the courtesy of the editors of the *Journal of Horticulture*, was published in the *Journal of the Horticultural Society* (iii., 19). The plant is a native of the North of China and

Mongolia, and has sometimes been called *C. mongolica.*

C. TUNBRIDGENSIS *(Cripps).*—This is one of the first batch of varieties sent out by Mr. Cripps, and is a fine free-flowering sort. It has pinnatisect leaves, the leaflets of which are of a cordate-ovate form, and give a bold character to the plant. The flowers are also showy, and of remarkably good form, resulting from the breadth of the sepals, which vary from four to six in number; they are of a reddish-lilac when they first open, changing gradually to a deep reddish-purple colour, the central band or stripe being of a bluish-mauve. It has the profuse-blooming habit of the true Jackmanni type, and being of a different shade of colour, may be advantageously introduced in company with such sorts as *C. Jackmanni* and *C. rubella.* A First-class Certificate was awarded to it at South Kensington, in August, 1866.

C. UNIQUE *(Jackman).*—This is a very remarkable variety, one of the most distinct which has yet been produced. It appears to belong to the *C. florida* type, having its ternate or pinnatisect leaves provided with ovate or elliptic-ovate leaflets, either lateral or terminal ones being occasionally trifid or three-lobed. The flowers, which measure about four inches across, and consist of eight obovate-elliptic apiculate sepals, are of a pretty pale yellowish satiny green, quite distinct from the tint of the leaves; this is set off by a tuft of deep chocolate-red anthers, having whitish filaments. The flowers have a rather striking appearance when seen by artificial light, and hence the plant

may prove valuable for evening decorations. It is a recent variety, curious rather than showy, and which flowered for the first time in 1871.

C. VAN HOUTTEI *(Carré)*.—This variety was raised from *C. lanuginosa*, and has simple or ternate leaves. The flowers are large, eight to nine inches across, white, slightly tinted with violet, and having yellow anthers.

C. VEITCHII.—See *C. John Gould Veitch.*

C. VELUTINA PURPUREA *(Jackman)*.—This, which is one of the Woking hybrids, has the successional and profuse-flowering character which marks the original Jackmanni group. It is a very desirable sort, as while free-blooming in habit, it is the deepest-coloured of all the varieties of this type. The leaves are bold in character, ternate or pinnatisect, with cordate-ovate leaflets. The flowers are large, from four to six inches across, consisting of from four to six sepals, but having a tendency to be four-sepaled; the colour is a very rich blackish mulberry-purple, and the stamens are greenish. This variety was shown at South Kensington in June, 1866, and was then awarded a First-class Certificate.

C. VERSCHAFFELTII *(Carré)*.—A variety of the patens group, raised from *C. cærulea grandiflora (patens)*, and having the foliage and habit of growth of that species. The flowers, which are about eight inches in diameter, are of a pale blue, the edge being of a deeper tint of blue, while the tuft of anthers is brown. It is, according to M. Carré, a vigorous and also a very floriferous plant.

C. VESTA *(Jackman)*.—A fine and vigorous-habited novelty of the patens group, remarkable for the well-marked but delicate primrose-like fragrance of its flowers. The leaves are ternate, with elongate ovate acute leaflets, which are sometimes lobed. The flowers are large, measuring fully five inches across, and consisting of eight or more spreading sepals, which are of an elliptic form, apiculate, of a dead white colour, with a creamy tinge over the central bar. The conspicuous tuft of purplish stamens, with white filaments, set off the flower to very great advantage. It is an acquisition as an early-blooming fine white variety, in some degree resembling that called *C. Miss Bateman*, but differing in the form of its leaves, which have the leaflets narrower and more elongated, with a tendency to become lobed; also in the deeper purple-red of the anthers, in the apiculate sepals, and in the primrose-like fragrance.

C. VICTORIA *(Cripps)*.—This is a showy, vigorous-habited variety of the lanuginosa type. The leaves are ternate, with very large broad cordate-ovate leaflets, while the flowers are well formed, close, composed of about six obovate sepals, of a reddish-lilac or deep reddish-mauve colour, the stamens having white filaments, and pale purplish-brown anthers. It is a showy and distinct variety, and was awarded a First-class Certificate by the Royal Horticultural Society in 1870.

C. VICTOR LEMOINE *(Carré)*.—A fine and recent variety of the patens group, obtained from *C. Sophia*. It is vigorous and floriferous in habit, with ternate

leaves, and flowers measuring eight inches across, the sepals being blue slightly tinged with violet, and the anthers purplish.

C. VIOLACEA, *De Candolle.*—This species, which we have not met with, is described as being allied to *C. dahurica*, having ternately or biternately cut leaves, with ovate segments oblique at the base; and the flowers on trichotomous peduncles, with oblong-linear blunt sepals. Its native country is not known, but it appears to have been cultivated in the Geneva garden, since a figure of it occurs in De Candolle's *Neuvième Notice sur les Plantes Rares du Jardin de Genève* (t. 1), and in the *Annales de Gand* (1845, t. 45).

C. VIOLACEA *(Spae).*—One of the earlier varieties of *C. patens* raised in Belgium. It agrees with that plant in regard to habit and foliage, and has the same poor starry blossoms as *C. atropurpurea*, the eight sepals which compose the flower being narrow, lance-shaped, and distant; they are of a washy greenish straw-colour, with the margin and rib-like veins of a dull wine-red. It is figured in the *Illustration Horticole* (vii., t. 254).

C. VIORNA, *Linnæus.*—This North American species is a woody climber, growing from six to twelve feet high, and having pinnate leaves, with the leaflets entire, three-lobed, or ternate. The flowers are bell-shaped, drooping, of a reddish-purple outside, whitish inside, consisting of connivent acuminated sepals, recurved at the tip and remarkably stout in texture, whence in America it is called Leather-flower. It is figured by Dillenius, in the *Hortus Elthamensis* (t. 118),

and Jacquin gives an excellent coloured representation of it in his *Eclogæ Plantarum* (t. 32).

C. VIRGINIANA, *Linnæus.*—A free-growing scrambling climber, growing from twelve to eighteen feet in height, with the general aspect of *C. Vitalba.* It has ternate leaves, with cordate acute toothed leaflets, and small whitish fragrant summer flowers, borne in panicles. It is a North American species, better suited for planting as a screen, than for the sake of its unattractive blossoms.

C. VITALBA, *Linnæus.*—A free-growing woody climber, growing from fifteen to thirty feet high, having pinnate leaves, and small greenish-white panicled flowers with an almond-like scent. It is a native of Central and Southern Europe, and of Northern Africa, and is common in Great Britain in calcareous soils. As a cultivated plant, its only merit, as in the case of *C. virginiana, C. grata,* and others, is the rapidity with which it will run over and hide unsightly objects. It is the common Traveller's Joy, or White Vine of our waysides, where in autumn and winter its heads of shaggy plumose fruits render it conspicuous, and have gained for it the name of Old Man's Beard. Mr. Bentham remarks that it is the only indigenous plant which gives a faint idea of the bush-ropes of the tropics.

C. VITICELLA, *Linnæus.*—A South European climber, growing from eight to twelve feet high, furnished with ternately decomposed leaves, the lobes or leaflets of which are entire; and bearing moderately large drooping flowers, which are bluish, purple, or

rose-coloured. As an ornamental plant, it is quite superseded by the varieties which have been obtained in gardens. This species, which is familiarly called Vine Bower, is figured in the *Botanical Magazine* (t. 565), and another very fine figure occurs in the *Flora Græca* (t. 516).

C. VITICELLA AMETHYSTINA *(Jackman)*.—One of the products resulting from the crossing of *C. lanuginosa* and *C. Viticella* at the Woking Nursery, the plant in this instance partaking most of the character of the latter parent. The flowers are bold, with erect or convergent sepals, much recurved at the edge, and of a pale violet-blue colour. It was Commended by the Royal Horticultural Society in 1864, but has not been sent out.

C. VITICELLA ATRORUBENS *(Hort.)*.—A free-growing and free-blooming plant, moderately slender in growth, and altogether of a very distinct character. The leaves are pinnatisect, those of the sterile shoots having leaflets of a narrow linear-lanceolate form, while those of the upper flowering shoots are broader and more ovate. The flowers are abundant and successional, about two inches across, semiexpanded, of a pleasing tint of rosy-crimson, with a tuft of pale green stamens, which form a very pretty contrast; it is, however, now superseded by *C. Viticella rubra grandiflora.*

C. VITICELLA MAJOR *(Hort.)*.—This may be regarded as an improved form of the typical *C. Viticella*, and in fact as superseding it for garden purposes. It is a handsome free-growing hardy climber, moderately

vigorous in character, with pinnately-parted leaves, the divisions of which are either simple or ternate, the segments very often lobed. The flowers are four-sepaled, semiexpanded, about two inches across, of a reddish plum-colour, with green stamens, and as in all the varieties of this species, are very freely and continuously produced from July to September.

C. VITICELLA MOOREANA *(Jackman)*.—One of a batch of seedlings raised at the Woking Nursery, the result of a cross between *C. lanuginosa* and *C. Viticella*, but partaking of the general character of the latter parent. The flowers are large for this type, with erect sepals, much recurved at the edge, and forming a convergent flower, of a deep violet colour. It was Commended when exhibited at South Kensington in 1864, but has not been sent out.

C. VITICELLA NANA *(Carrière)*.—A remarkable dwarf variety, raised in the Jardin du Muséum at Paris, and differing from the type in not being of climbing habit, but producing short straight stems, which form together a compact bush of from one to two feet high, which becomes covered with continuous masses of flowers, and has a very ornamental effect. The flowers are of a rosy-lilac colour, larger than those of the type, but corresponding with them in form. It is a remarkable variety, and shows how greatly the habit of a plant may be modified, without the loss of specific identity.

C. VITICELLA PALLIDA *(Jackman)*.—A cross-bred variety between *C. lanuginosa* and *C. Viticella*, raised at Woking, following somewhat the character of the

former parent in having the flowers large, broad-petaled, and expanded; they are of a lilac hue, with reddish bars in the centre of the sepals, and being distinct in colour, and judged useful for contrast, it was awarded a Second-class Certificate at South Kensington in 1864. It has, however, been withdrawn from cultivation, as being inferior to the varieties of the Jackmanni type.

C. VITICELLA PURPUREA PLENA *(Hort.)*.—This belongs to the true type of *C. Viticella*, and is a free-grower, of moderate vigour, and a profuse and continuous bloomer. The leaves are pinnatisect, with lance-shaped leaflets, and the blossoms, which are of dull grayish-purple, are double, having a large tuft of petaloid filaments forming a rosette in the centre; they are abundantly produced, but from their peculiar shade of colour are not very attractive.

C. VITICELLA RUBRA GRANDIFLORA *(Jackman)*. [Plate II., fig. 2.]—This is one of the most beautiful of the Viticella forms, and gained a First-class Certificate when exhibited at South Kensington in July, 1868. The leaves are pinnately-divided, or sometimes biternate, the leaflets being sometimes entire and ovate, sometimes divided into three segments, which fully equal the simpler leaflets in size. The flowers, which are abundant and successional, measure about three inches across, and are composed of from four to six sepals of a rich bright claret-crimson, with green stamens. This charming variety, which has much the habit of *C. Viticella venosa*, and like it is a most valuable acquisition—the profusion of blossoms

and the distinctness of colour rendering it exceedingly effective—is the nearest approach to a crimson *Clematis* yet obtained. It was raised in the Woking Nursery.

C. VITICELLA VENOSA *(Hort.)*.—In this beautiful *Clematis*, which is of free growth and of moderate vigour, the stems are slender and branching, and the leaves pinnately parted, while the leaflets, especially the lower pair, are ternate. The flower-buds are erect, of a brownish-purple, and expand into full round handsome flowers, measuring from four to five inches across, and composed of five or six roundish ovate sepals; the colour is a pleasing tint of reddish-purple, paler towards the base of the sepals, in the centre of each of which is a five-veined bar more distinctly tinted with red, the entire surface being elegantly veined with crimson; while the central tuft of stamens, with white filaments and dark purple anthers, stands out in bold relief. It is remarkably free, bearing a long succession of flowers, and is altogether one of the most ornamental of the many kinds now in cultivation. An excellent coloured figure is given in Henderson's *Illustrated Bouquet* (ii., t. 39); and it is also figured, less happily, in the *Flore des Serres* (xiii., t. 1364), where we learn concerning its history, that it was raised about 1855, either by M. Krampen, of Rosskothen, in Germany, or by M. Wilke, of Arnhem, in the Netherlands, the reputed parents being *Clematis patens* and *Atragene alpina*—a somewhat doubtful origin.

C. W. E. ESSINGTON *(Jackman)*.—A free-growing but slender-habited variety, apparently belonging to

the Jackmanni type. The leaves are pinnatisect, with neatly-formed cordate-ovate acuminate leaflets. The flowers are six-sepaled, of a reddish-violet hue, redder towards the base of the sepals.

C. WILLIAM CRIPPS *(Cripps)*.—This is one of the most recent Tunbridge Wells hybrids, and belongs to the Jackmanni type. The handsome flowers are of a remarkably fine form, and of a rich and beautiful tint of claret-purple, produced continuously until late in autumn. It bloomed for the first time in 1871, and the flowers then exhibited at Kensington gave promise of its being a decided acquisition.

The names of some few species which occur in garden catalogues are omitted from amongst the foregoing descriptions, in consequence of the plants they represent being quite unknown to us, having, as we suppose, passed out of cultivation. We particularly refer to *C. biternata* (white), *C. chinensis* (dull purple), *C. dahurica* (dull purple), *C. japonica* (purple), *C. terniflora* (white), and *C. triternata* (white). It may, we think, be safely assumed that they are unimportant as garden plants. One or two others, as *C. Gebleriana (soongarica)* and *C. jubata*, are essentially weedy in character; while of some few which occur in the Continental trade lists, as *C. Blackburniana*, *C. californica*, *C. Camusetii*, *C. indica*, and *C. Leeana*, we have been unable to obtain any reliable information. *C. nepalensis*, another catalogue name, appears to be applied to *C. montana* in some plant lists.

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